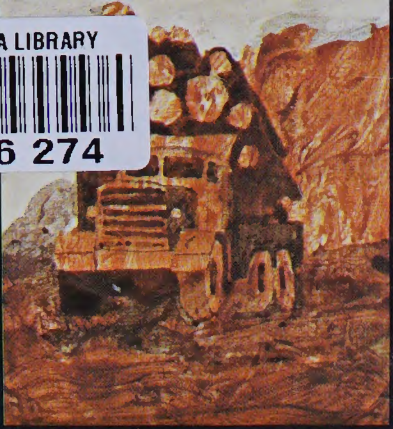
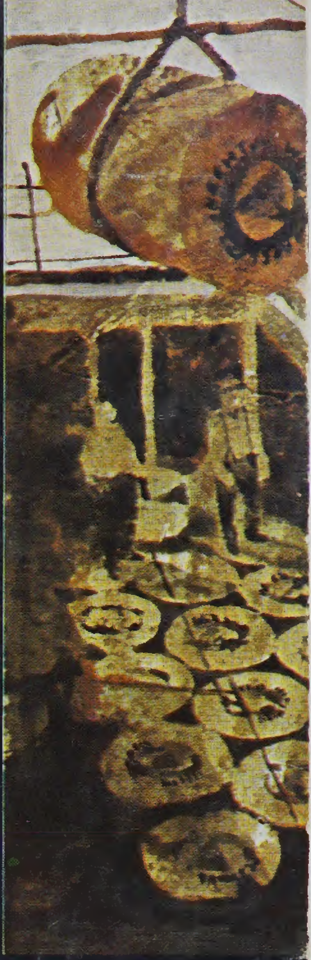
UNIVERSITY OF ALBERTA LIBRARY
0 0001 0126 274

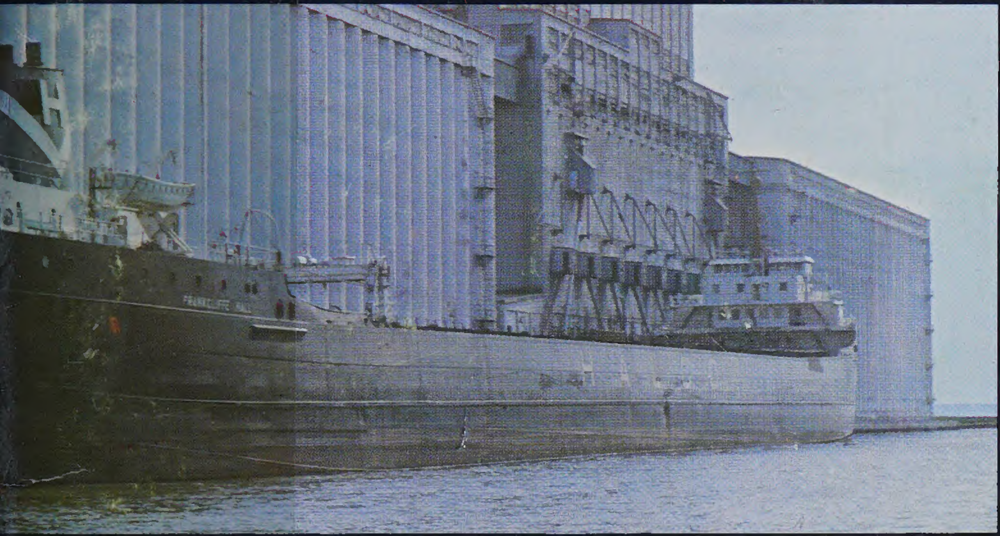


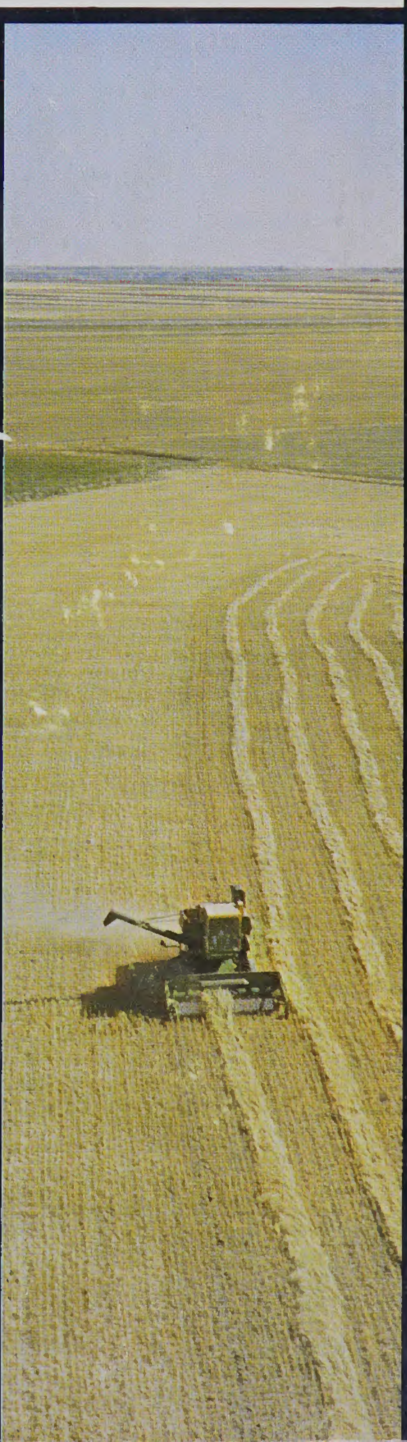


General Editor: Evelyn Moore

People and Places in Canada

Author: James H. Marsh

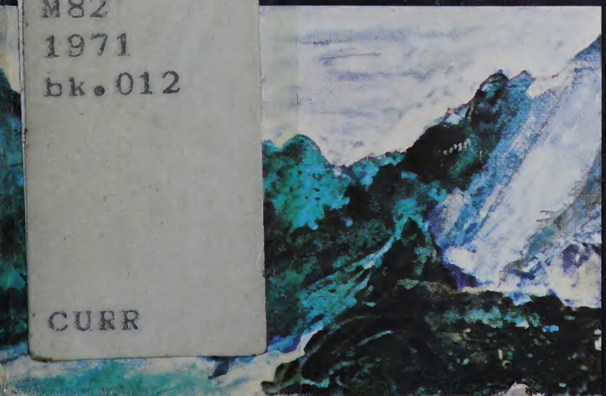




The Fishermen of Lunenburg

REVISED EDITION

FC
75
M82
1971
bk.012
CURR



Cover:

Pipeline—*Gulf Oil Canada Ltd.*
Fishing Village—*New Brunswick Travel Bureau*
Toronto City Hall—*Ontario Department of Tourism and Information*
Cattle Ranching—*Alberta Department of Industry and Tourism*
Ship—*Ontario Department of Tourism and Information*
Wheat Farming—*Alberta Department of Industry and Tourism*

Art:

John Luckhurst

Ex libris
universitatis
albertaensis

QUAECUMQUE VERA

The Fishermen of Lunenburg

REVISED EDITION

A sample study of a fishing community

An inductive approach

author
James H. Marsh

general editor
Evelyn Moore

Holt, Rinehart and Winston
of Canada, Limited

Toronto : Montreal

AUTHOR:
James H. Marsh

GENERAL EDITOR:
Evelyn Moore,
Faculty of Education,
University of Calgary,
Calgary, Alberta.

Photographs:

Department of Fisheries of Canada, Ottawa. (Figures 110, 111)
Wilf Eisnor, Lunenburg, Nova Scotia. (Figures 5, 61, 63, 65-69, 74-81)
Knickle's Studio, Lunenburg, Nova Scotia. (Figures 10, 39, 40, 42, 43, 45-49)
Nova Scotia Information Service, Halifax. (Figures 25, 37, Inside Back Cover)
All other photographs are the property of
Holt, Rinehart and Winston of Canada, Limited

Copyright © 1968 by
HOLT, RINEHART AND WINSTON OF CANADA, LIMITED
All rights reserved

ISBN 0-03-925615-4

Printed in Canada

4 5 6 7 76 75 74

LIBRARY

Table of Contents

Unit I—"The Sea Gets in Your Blood" 1

Unit II—Introducing Lunenburg 3

Unit III—Describing Lunenburg 12

Unit IV—A Golden Era Past 28

Unit V—Meeting an "Inshore" Fisherman 37

Unit VI—A Sea Voyage 45

Unit VII—The National Sea Products Plant 57

Unit VIII—A Fishing Overview 66

Unit IX—Fishing Across Canada 72

2792549

UNIT I: "THE SEA GETS IN YOUR BLOOD"

Early Sunday morning, an old man strolls along the beach of Lunenburg Harbour. "It's a very good mornin'," he says. He pauses by some decayed, moss-covered timbers that once served as piers for the sailing vessels of the past. He stops to run his hand over the cracked, chipped paint of a small wooden fishing vessel pulled up on shore.

He is tall and strong looking. He has a rough, white beard that half covers the leather-brown skin of his face. His clear blue eyes make him look as young as the boy he was when he first took to sea.

His accent is quite different from speech you would hear anywhere in North America, except perhaps in parts of Pennsylvania and around Waterloo Ontario, where Dutch and German farmers settled. The accent is soft with a "twang." Lunenburg is "Luningburg." A vessel in his speech comes out "wessel."

Pointing to the shipyards, where a hospital supply ship is in for repairs, he begins:

"I were the skipper of that wessel. Comfortable she were, too. We took medical supplies to places in Labrador and farther north. We often took narses south to Montreal for their holidays. She were a comfortable wessel, as I were concerned.

I bin retired now a year. First two, three weeks after, I were wantin' every day to get my feet wet. I were wantin' so bad to get to sea. I bin at sea since I bin a boy. I bin a cabin boy, bosun, mate and skipper. I bin all 'round. In New Brunswick I bin fishin' with French-Canadian folk. They were as fine people you could meet, as I were concerned."

While talking, the old man emphasized with his hands. They were large, tough and muscular. They were scarred and nicked on every finger from knife cuts and rope burn.

"During the war, I were in the merchant navy. We bin sailin' the North Atlantic five, six years. We took food, clothes, guns and whatever across. Never was a trip we didn't lose one or two, maybe more, wessels. I bin wery lucky. Bin ships right alongside blowed right out of the water.

Yes, and I bin fishin' all kinds: by sail, by dragger, by seiner, by dory. That were the vorst, though, the dory fishin'. You'd go out in the mornin, waves tall as ships, in a small dory 'bout big as a row boat. For hours you'd bob 'round on the waves, never seein' the main wessel. Wintertime it were severe cold every day. Your face were thick with ice. Your hands froze to your gloves. The winds were always strong. The seas were always high. I lost relatives and friends. You never knew if you were comin' back.

Later on, it weren't so bad. Bin fishin' on steel wessels where you don't go off the deck like you did in dories. You stayed on deck and it were so much better, as I were concerned.

First two, three months after I retired, as I say, I bin wantin' every day to get my feet wet. Now, I'm gettin' more to accept that I'm too old. Most folks get old and they go home. They retire to their home. I get old and I have to leave home. The sea were my home. As we bin saying in Luninburg all these years, 'it gets in your blood. The sea gets in your blood'."

The old gentleman stared out past the harbour as though no one were there with him.

QUESTIONS:

(1) Explain the saying "The sea gets in your blood."

(2) There are many stories of men with the sea in their blood. Try to find some of these in your library. *Captains Courageous* might be especially interesting for some of you.

(3) If farmers look to the soil for their living, and miners look to the rock, to where did this Lunenburger look?

(4) Describe the old man's way of life. Why did he call the sea his home?

(5) How is the old man's speech different from speech in your area? What other North Americans speak much this way?

(6) Find Labrador, Montreal, New Brunswick and Lunenburg on an atlas map. Also, show the approximate route the ships of the merchant navy took in the war.

UNIT II: INTRODUCING LUNENBURG

What is a town? What do you think of when you hear the word? Perhaps you think of people or of buildings or of a particular landmark. It may be your home, or the place you shop or visit once a week. A town is these things and many others.

The next pictures show one obvious thing that any town has. Look first at figures 1 to 3.

QUESTIONS:

(1) Describe what the children are doing in each picture.

(2) What other games do you think these children might play?

(3) What can you say about the children of Lunenburg, Nova Scotia?

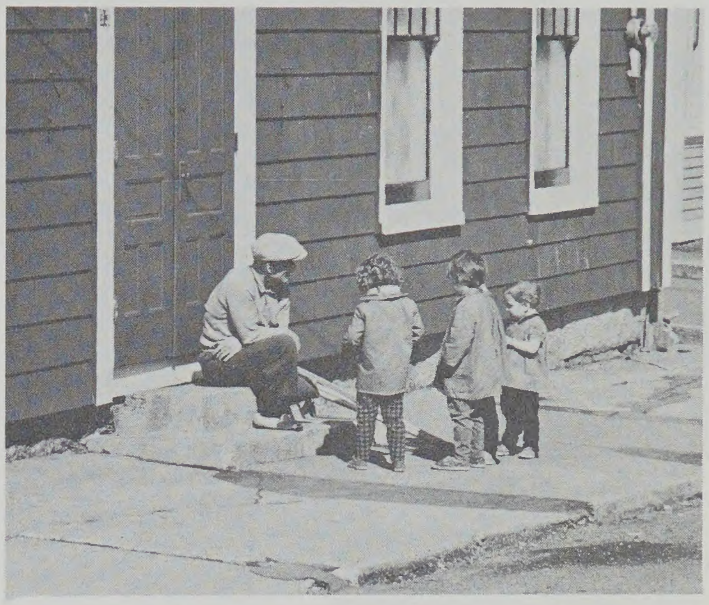


FIGURE 2.

(4) Make up a story that the man in figure 2 might be telling.

FIGURE 1.

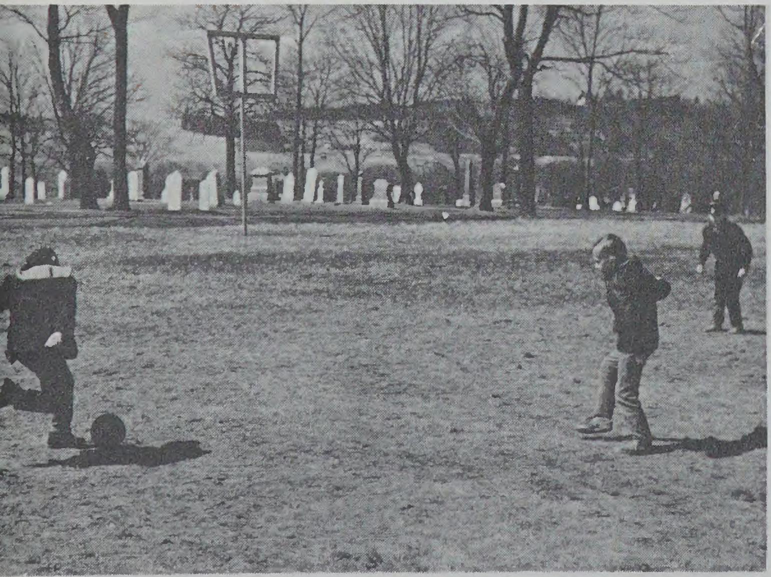
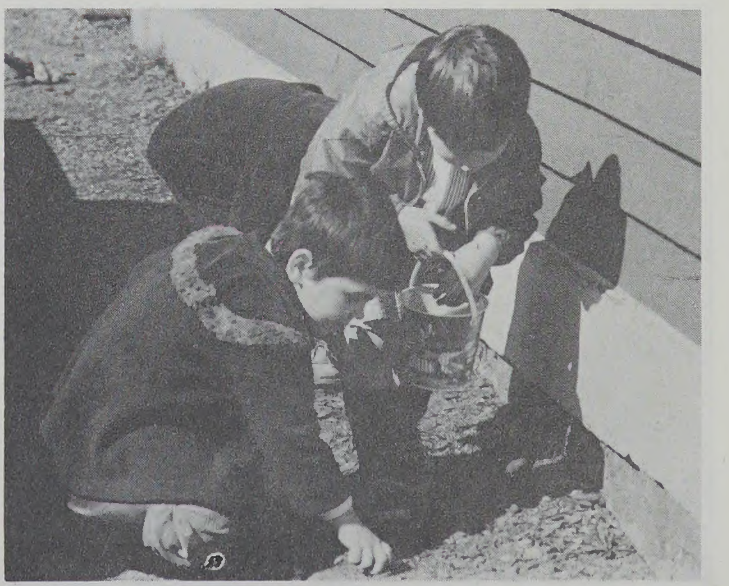


FIGURE 3.



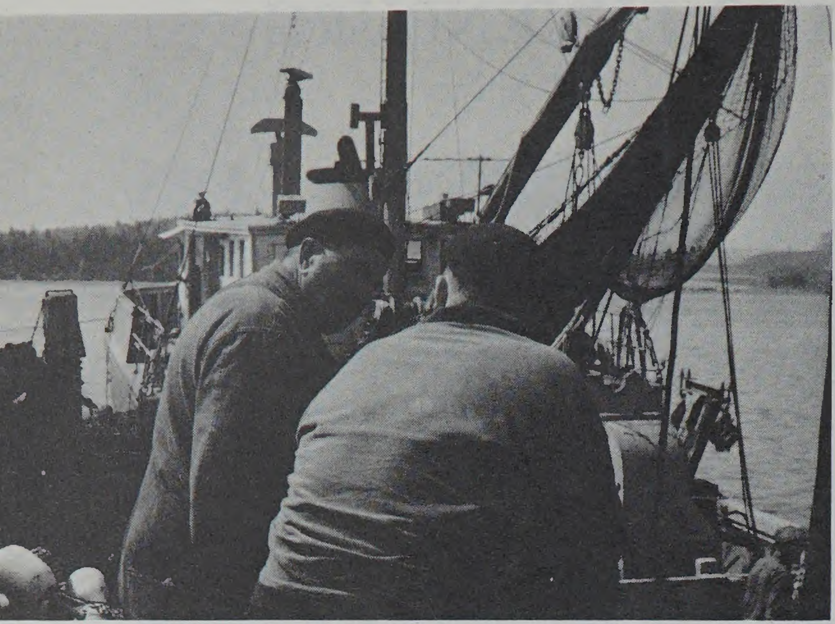
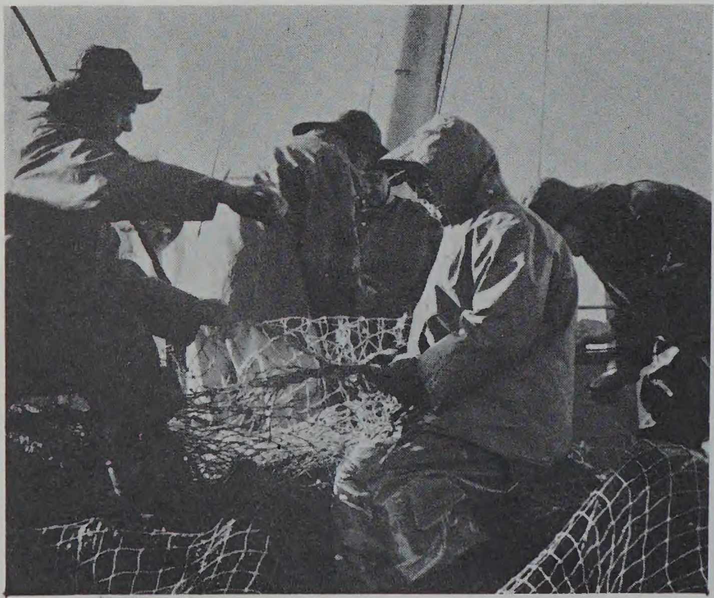


FIGURE 4.

(5) Figure 4 shows two Lunenburgers talking. Describe how these men are dressed.

FIGURE 5.



(6) What is the object behind these men? What is beyond this object?

(7) Identify the object hanging down the right and to the left of these men.

(8) What kind of ship is this?

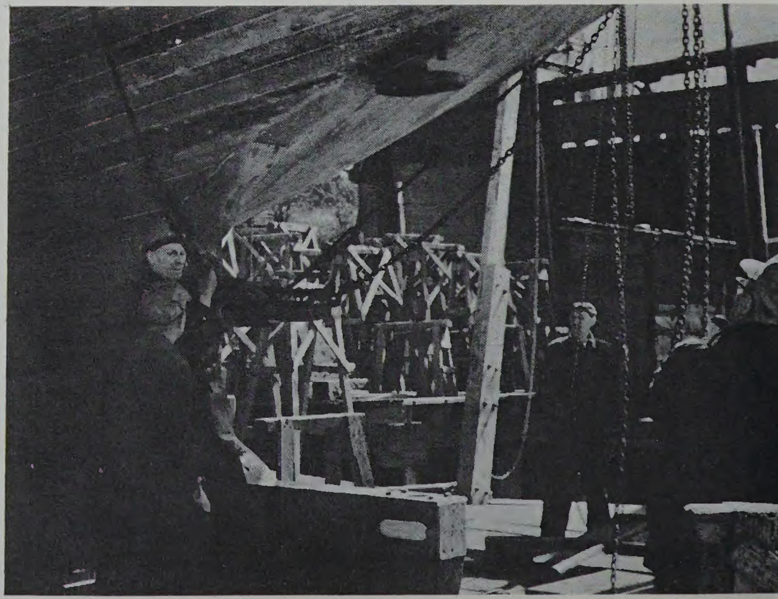
(9) What might these men do for a living?

(10) Select a partner and make up a conversation to show what these men might be saying.

A town is people: children, mothers, all kinds of workers. These people live quite close together as you can see if you look ahead to the picture of Lunenburg, figure 10.

Study figures 5, 6 and 7.

FIGURE 6.



QUESTIONS:

(1) What are the men doing in figure 5? . . . in figure 6?

(2) On what is the man in the foregound of figure 7 working?

(3) How does his job differ from those of the men in figures 5 and 6?

(4) What is one important thing a town provides for its citizens?

(5) Describe how each of the workers you have seen are interdependent.

A town is people working together. Some men catch the fish. Some men build or repair the ships on which the fish are caught. Still others cut and dress the fish in factories. Further, a great variety of people depend on these men buying their goods or services.

Figures 8 and 9 show two of the services that Lunenburg supplies. What are they?

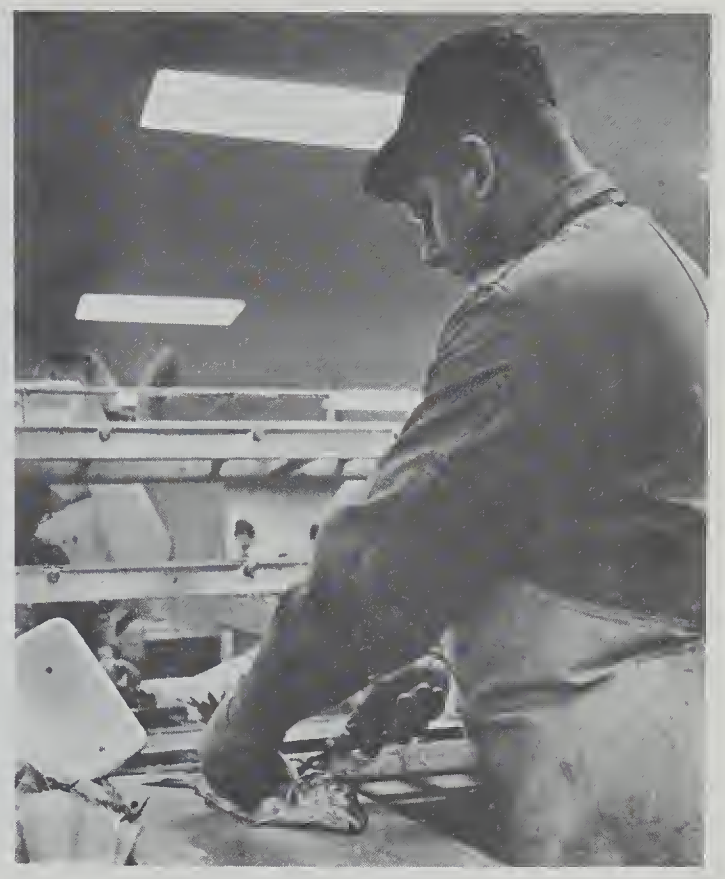


FIGURE 7.

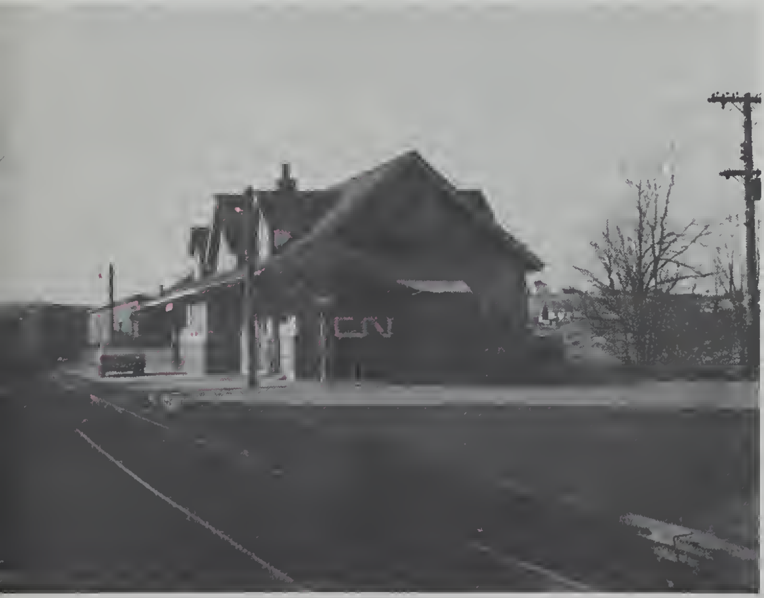


FIGURE 8.

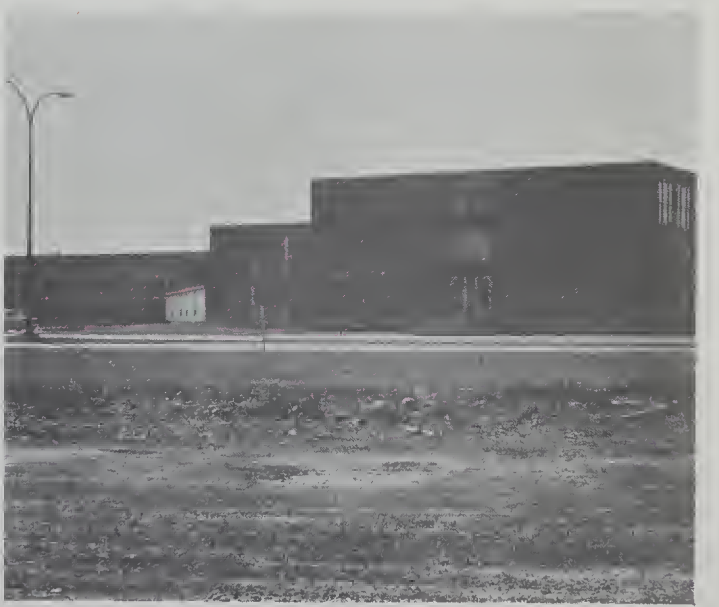


FIGURE 9.

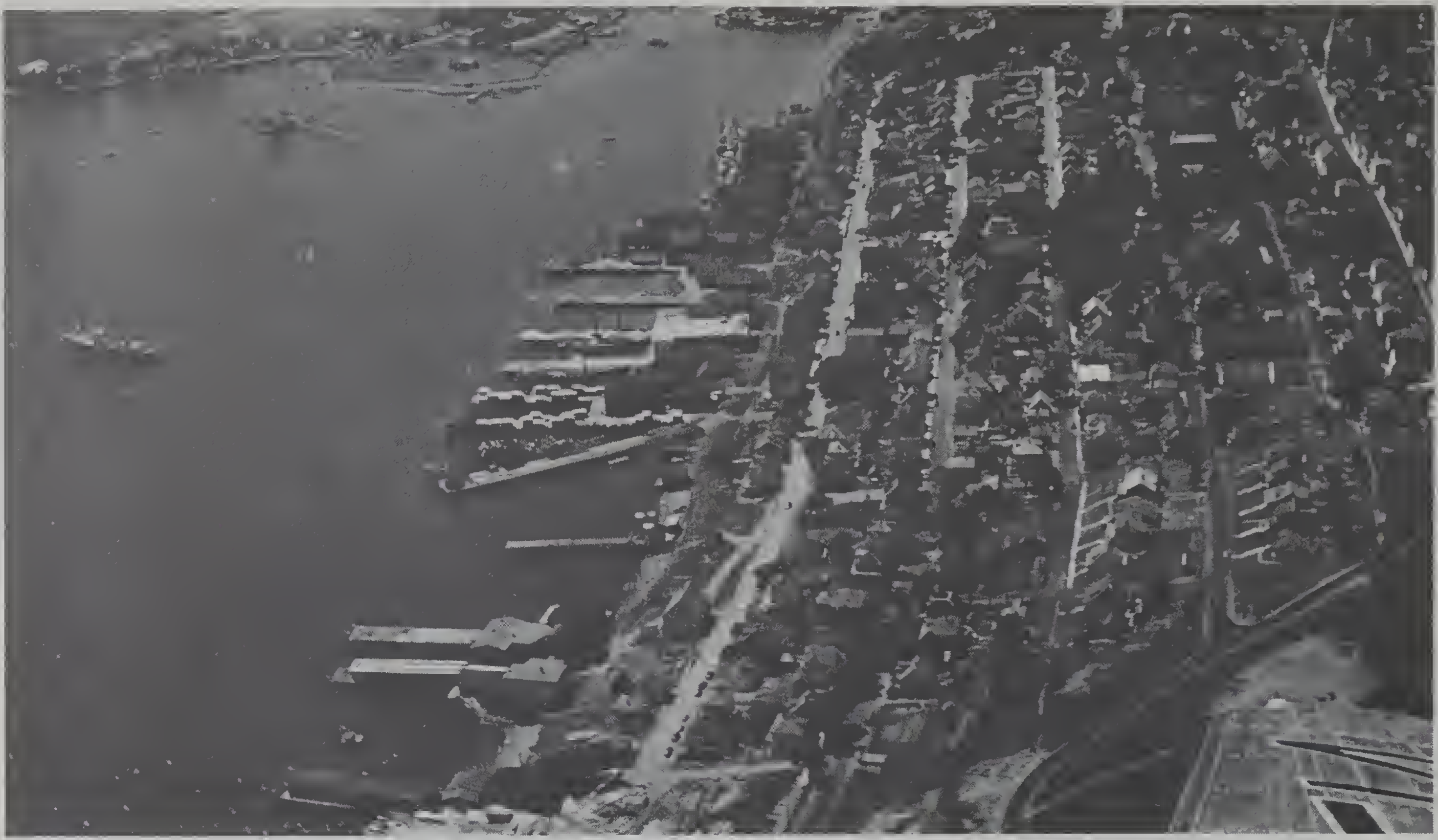


FIGURE 10.

From the list below, select some other services you would likely find in Lunenburg. Think of other towns you have studied.

(a) a yacht shop
(b) a concert hall
(c) a supermarket
(d) farm machine services
(e) a drugstore
(f) stockyards where cattle and pigs are kept
(g) a yard for repairing ships
(h) public transportation
(i) a college
(j) an airport
(k) a railway station
(l) a large steel plant

In what kind of a centre would *most* of these services be found? Make a generalization about towns as compared to cities in terms of services.

The kind of services a town provides depends much on the kind of town it is. We can get more clues as to the kind of town Lunenburg is by studying the aerial photograph, figure 10.

Run your finger around the water area. What do we call such a body of water almost enclosed by land? What is the advantage to a town of such a body of water? What helps to make it safe for ships?

QUESTIONS:

(1) Name the long objects built out into the harbour. How many of them are there? What might be their function?

(2) What would be the function of the larger buildings along the dock area?

(3) What kind of town is Lunenburg?

(4) How does Lunenburg being this kind of town affect the services and facilities of the town?

Summary:

Lunenburg is a seaport. A variety of vessels use the harbour, but the most common are fishing vessels, which fish the North Atlantic and bring their catch to Lunenburg.

Lunenburg has a fine harbour which protects the dock area and the ships moored there from the storm winds and waves. To handle these ships any port needs piers and other dock facilities, like warehouses to store goods, or trucks to move these goods.

The Ships in the Harbour

Below is a list of some kinds of vessels that visit Lunenburg. Try to find each kind in the pictures that follow. Explain each choice.

(a) a very old fishing vessel
(b) row boats
(c) modern freighters
(d) a modern fishing vessel
(e) small wooden fishing vessels.

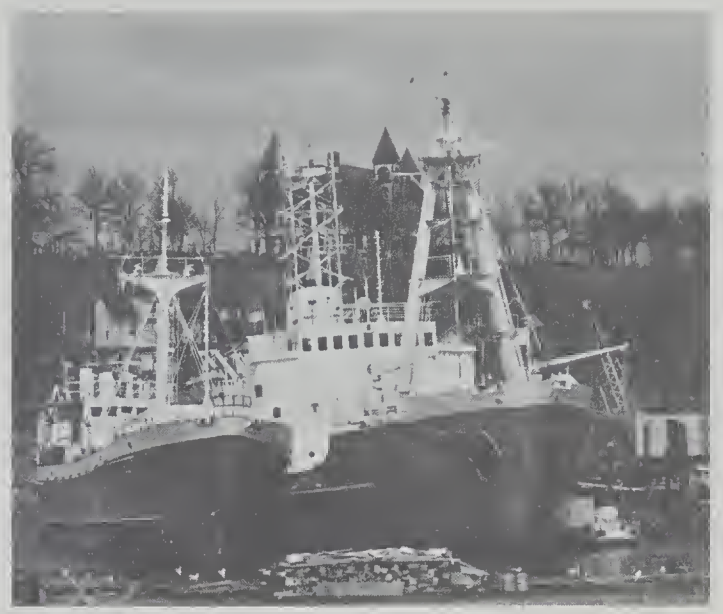
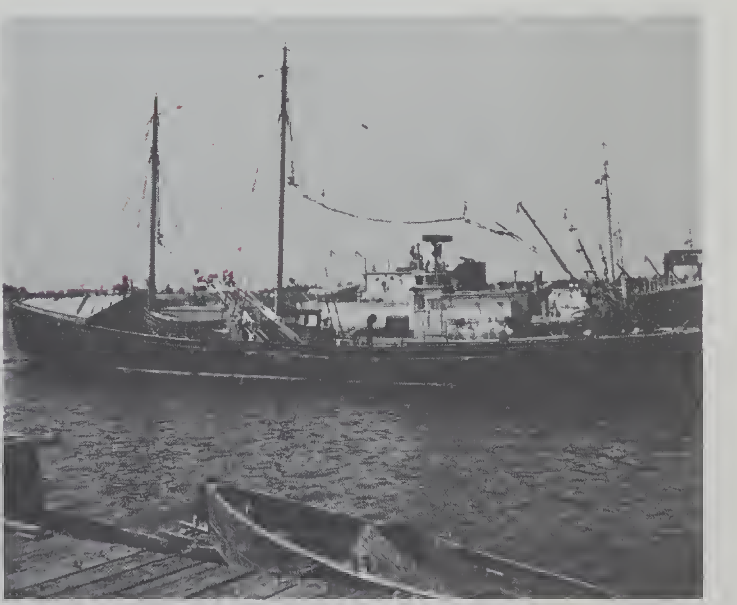


FIGURE 11.

The old fishing vessel in figure 12 is one of very few still sailing. She is wooden and uses sails along with her engine. This kind of ship used to do most of the fishing, but now they only catch special fish, like swordfish.

FIGURE 12.



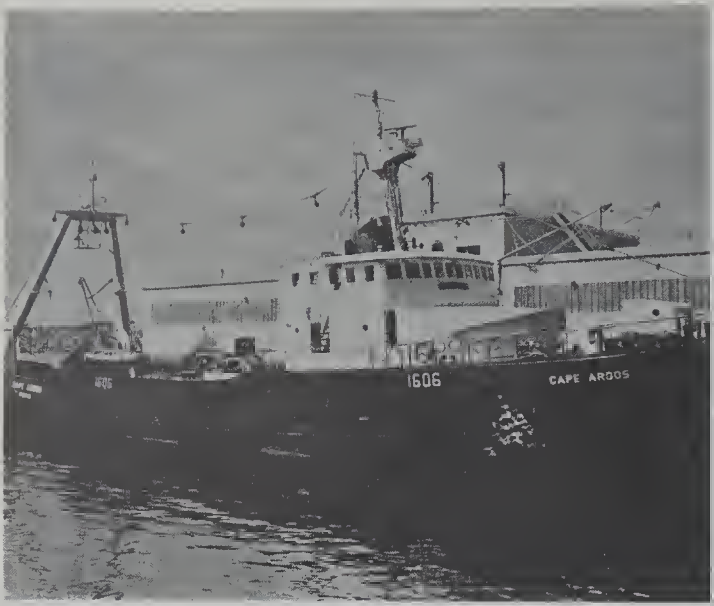
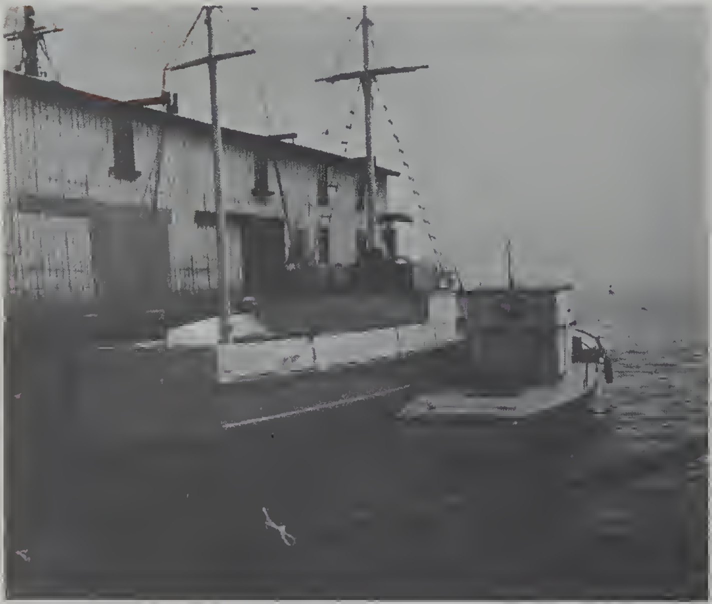


FIGURE 13.

The vessel in figure 13 is one of the most modern fishing ships in Canada. What is her name? These ships are very fast, and have up-to-date instruments and machines to help find and catch fish. We will see more of these vessels later.

FIGURE 14.



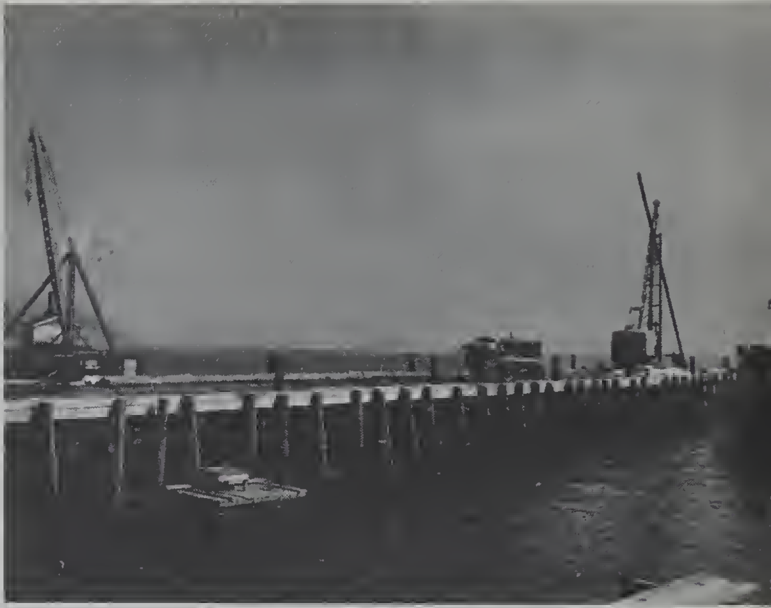


FIGURE 15.

In figure 10 we saw some of the piers in Lunenburg Harbour. Look at the pictures again to see what is used to tie the ships to the piers. You can get a good idea of the construction of the piers from figure 15. Of what are they made? What advantages would this material have over steel or concrete?

The Face of Lunenburg

Every town has buildings. These have a variety of functions. The buildings in a town can tell us much about a town: its concerns, its prosperity, its age, and the pride that the citizens have in their town.

Study figure 16.

QUESTIONS:

(1) What kind of building is this? . . . a factory? . . . a house?

(2) In what ways is it different from the buildings in your town?

(3) How old do you think this building is? . . . 10 years? . . . 100 years? . . . 200 years?

You have been looking at Romkey House. It is the oldest house in Lunenburg. It was built around 200 years ago and is still lived in. Is it well kept for its age? What does this tell us about the pride Lunenburgers have in their town? Are there any houses in your area as old as Romkey House? Which is the oldest house in your area?

Now look at figure 17. Guess what this building is. The object behind the car at the right and the kind of people around the building should help you.

This building is called the Lunenburg Academy. It was built on Gallows Hill in Lunenburg near the end of the last century, and is the town's most famous landmark. Once all Lunenburg's school children attended the Academy, but now it is only for children attending grades one to eight. From where might Gallows Hill have received its name?

QUESTIONS:

(1) Describe the building. Perhaps you have seen this kind of architecture before. Where?

(2) How does the school compare with your school?

(3) What clue does the Academy give us of the origins of the people of Lunenburg? Explain.

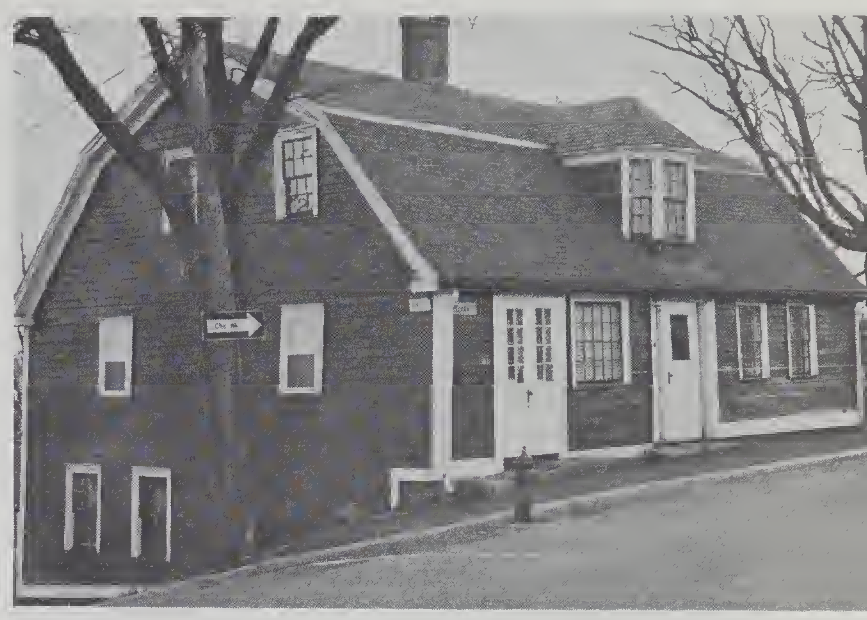
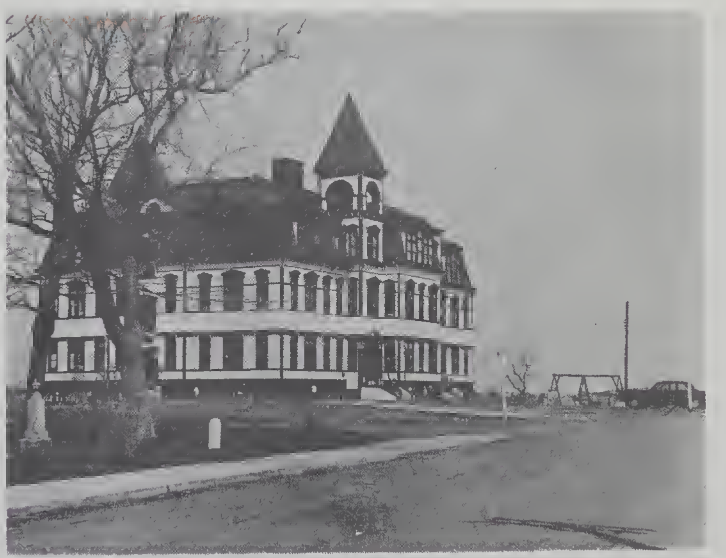


FIGURE 16.

If you have read travel leaflets, you have probably seen buildings like the Academy in Germany, Holland, or Switzerland. The Academy is a large wooden structure with pointed roofs and bell towers and is painted red, white and black.

FIGURE 17.



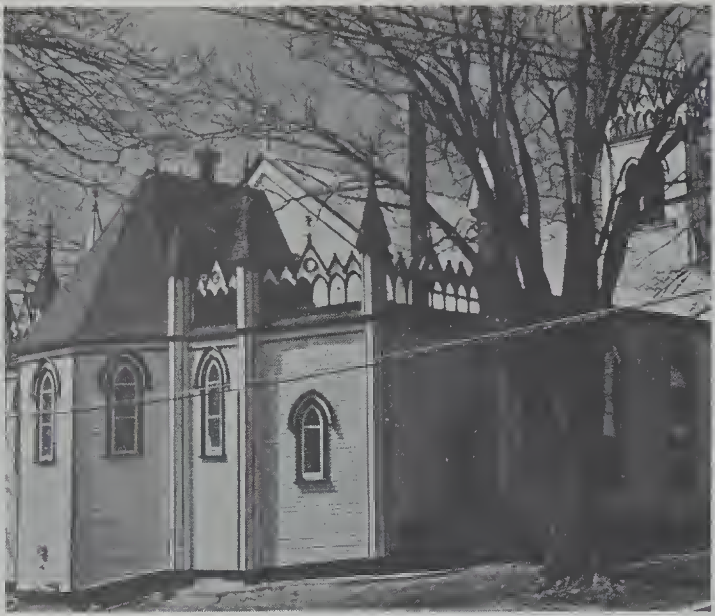
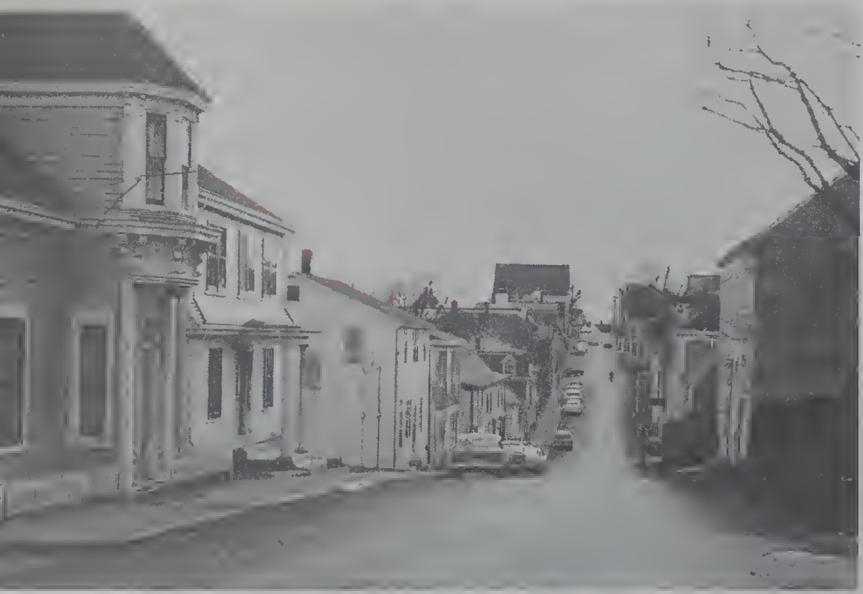


FIGURE 18.

What kind of building is shown in figure 18? How is it similar to the Academy? How does it differ from or resemble churches in your area?

Describe the shape of the land in figure 19. Describe the houses. Are they well kept?

FIGURE 19.



QUESTIONS:

(1) What do the buildings we have seen tell us about,
  (a) the prosperity of Lunenburg,
  (b) the age of Lunenburg,
  (c) the origins of Lunenburg's settlers,
  (d) the pride Lunenburgers have in their town?

Figures 20, 21 and 22 show three of the shops in Lunenburg.

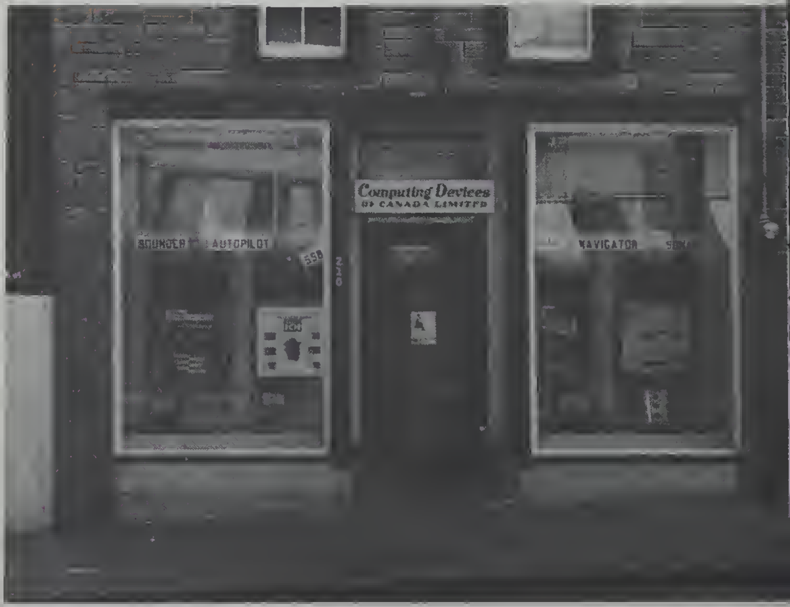
QUESTIONS:

(1) What is sold in each shop?

(2) Compare these shops with shops in your area.

(3) What is done in a blacksmith's shop? Why might such a shop be needed in Lunenburg?

FIGURE 20.



(4) What ship did we study on which we might find "computing devices?" Why are they useful? What computing devices are advertised? Perhaps you could make a classroom display of the history of aids for navigation.

(5) What would be "outfitted" by the shop in figure 22?

(6) How do Lunenburg's shops show the kind of town Lunenburg is?

(7) Write a list of the different functions of the buildings we have studied. Add as many more as you can think of, like Town Hall, hospital and so on.

(8) Pretend you have just visited Lunenburg. Write a description of the town in a letter to a friend.

A town is a place to live, a place to work, to play, to worship and to do many other things. By living and working together people are able to have a life far better than what they can have on their own. Together people can build machines, houses, factories, and ships.

Lunenburg is one of the oldest towns in Canada. It is a different town with different architecture. The people speak with a distinctive accent. Lunenburgers are proud of their town and feel that it is special, and that they are special people living in it.

That Lunenburg is a port can be seen by its harbour and piers and their ships. Unit one was called "the sea gets in your blood," and Lunenburgers look to the sea as miners look to the rock or farmers look to the soil.

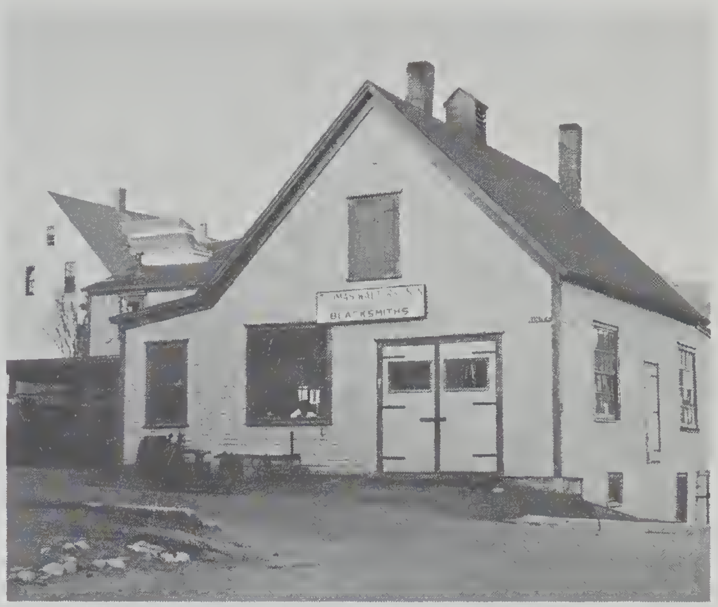
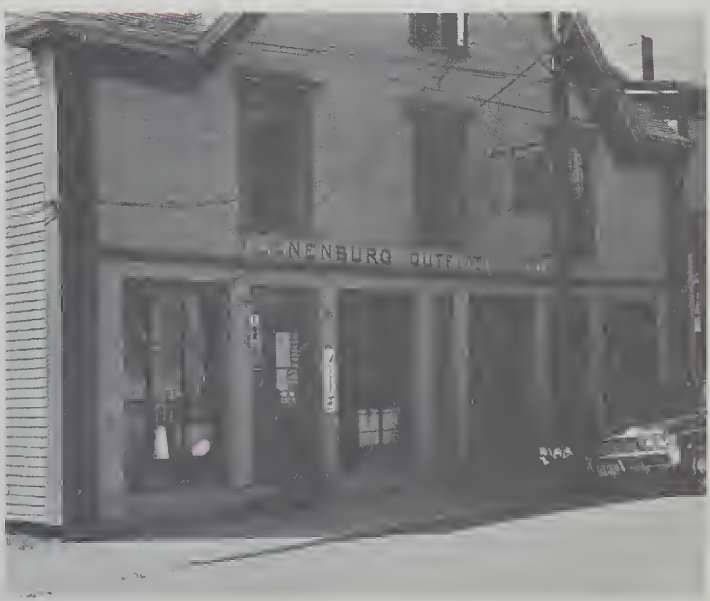


FIGURE 21.

Just as your face tells us whether you are happy or sad, the face of a town can tell us much. What have we learned from the face of Lunenburg?

FIGURE 22.



UNIT III: DESCRIBING LUNENBURG

In this unit, we are going to ask the question "Where is Lunenburg?" We will find that there are several answers to this question, just as there would be several answers to the question. "Where is Jack?" We could answer "Jack is ten feet from the front blackboard and thirteen feet from the side blackboard." Or we could answer "Jack is two rows over and one seat up from Elaine." A third answer might be "Jack is sitting at the desk with the broken seat." Each tells us where Jack is in a different way.

Where is Lunenburg?

Study figure 23, locate Lunenburg on the map and answer the following questions.

QUESTIONS:

(1) Is Lunenburg north or south of Winnipeg? . . . of Toronto?

(2) In what province is Lunenburg located?

(3) On what ocean is Lunenburg located? What other bodies of water are near?

(4) What three provinces are closest to Nova Scotia? What do all four provinces have in common? What do we call these provinces taken together?

At the bottom of the map is a scale. By using this scale we can find distances on the map by measuring distances with our ruler and then setting the ruler along the scale.

QUESTIONS:

(1) About how far is the boundary of Nova Scotia from the boundary of Ontario? . . . from Manitoba? . . . from British Columbia? . . . from Massachusets, United States?

(2) Be as accurate as you can in finding how far Lunenburg is from (a) Halifax, (b) St. John's, (c) Boston, (d) Toronto, (e) Winnipeg and (f) Calgary.

(3) Give two reasons why the men of the Atlantic Provinces might have often had more to talk about with men of the Northeastern United States than with Canadians from the Prairies.

(4) What cities are probably the most important as far as Lunenburg is concerned? Why? Discuss this.

Before we leave this map, locate your area on it. In what direction is Lunenburg from your area? Describe the position of the Atlantic Provinces in Canada by using the map in Fig. 23. How far is your area from Lunenburg?

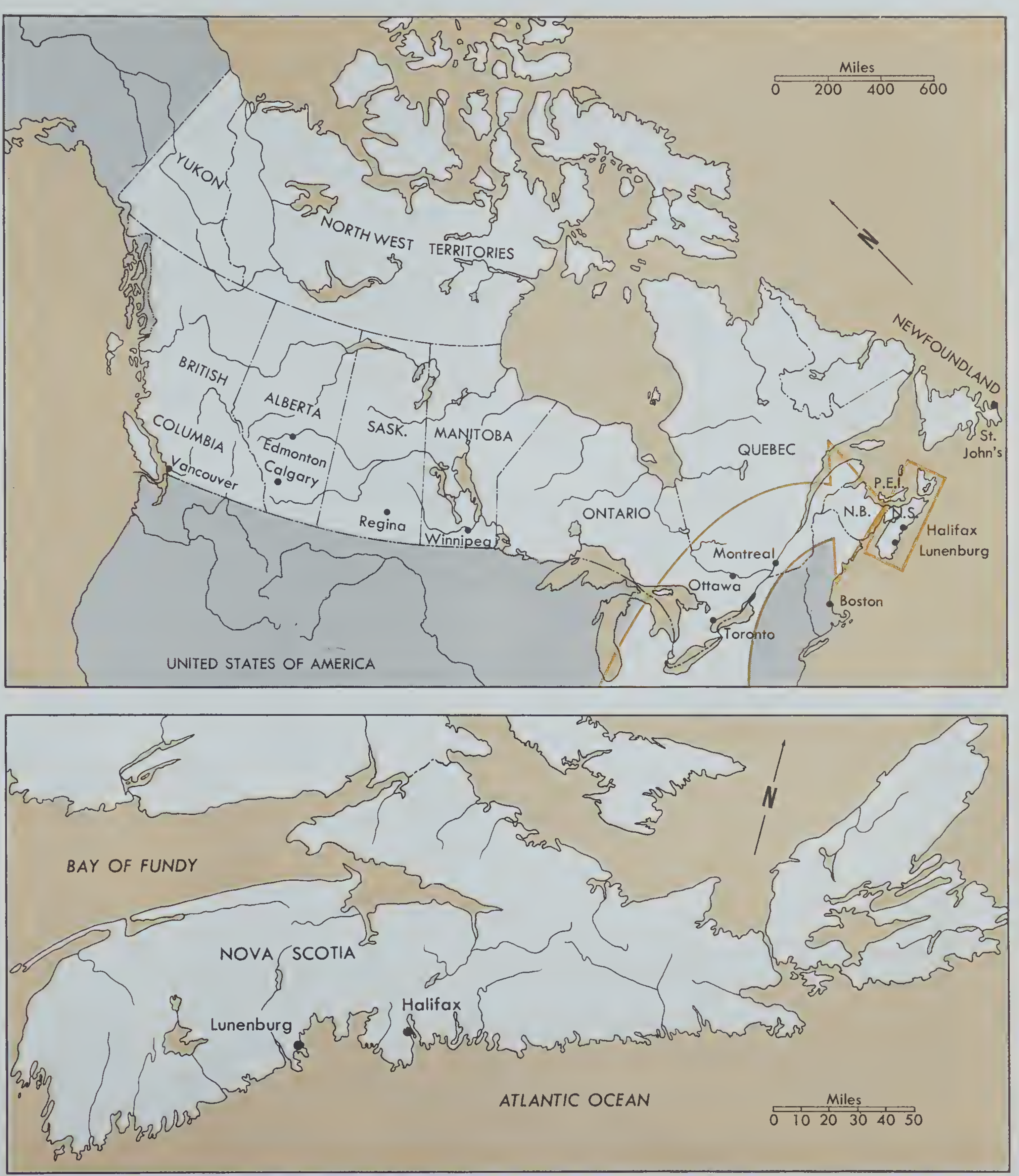

Miles
0 200 400 600
N
YUKON
NORTH WEST TERRITORIES
BRITISH COLUMBIA
ALBERTA
SASK.
MANITOBA
ONTARIO
QUEBEC
NEWFOUNDLAND
St. John's
P.E.I.
N.B.
N.S.
Halifax
Lunenburg
Edmonton
Calgary
Vancouver
Regina
Winnipeg
Montreal
Ottawa
Toronto
Boston
UNITED STATES OF AMERICA
N
BAY OF FUNDY
NOVA SCOTIA
Halifax
Lunenburg
ATLANTIC OCEAN
Miles
0 10 20 30 40 50

FIGURE 23.

Summary:

The questions you have answered have helped locate Lunenburg in relation to the rest of Canada and part of the United States. It was like answering "Jack is ten feet from the front blackboard." This is called a town's *location*.

Lunenburg is located on the Atlantic seacoast of Nova Scotia. It is quite close to Halifax from which it buys many goods. Halifax is also the capital of the province. The modern fishing vessels so important to Lunenburg's fishing industry are built in Halifax, and Lunenburg sells some of its products in this important city.

We have seen that Lunenburg and Nova Scotia are closer to the Northeastern United States than a great part of Canada. Both areas share the same ocean and often the same interests, like fishing and shipbuilding. What might be two types of work for men on the coast of the United States? Where might they want to sell their products? Can you now suggest two ways in which the men of Lunenburg might be competing against the men of the Northeastern United States?

ASSIGNMENT:

(1) Find out when Nova Scotia and New Brunswick joined Confederation.

(2) Find out what group of settlers came to these provinces during the American Revolution.

Many parts of Canada have different interests; the Atlantic Region, Quebec, the West. But we stay together as Canadians just as brothers and sisters who go their own ways sometimes but who stay part of the same family.

What separates much of the Atlantic region from the rest of Canada? How might this body of water also connect the two areas? Much of the history of this area has been a conflict between being drawn to and being separated from the rest of Canada.

A MAP STUDY

To learn about the area in which Lunenburg is located, a useful source is the "topographic" map. Find the meaning of topographic. Different markings on the map *represent* features on the land. These markings are called symbols. A symbol on a map represents a feature on the land.

Locate the following on figure 24 and describe the symbol that represents each: (a) the town of Lunenburg, (b) the main road to and through Lunenburg, (c) the railway line, (d) the dock area in the harbour, and (e) the lighthouse on Battery Point.

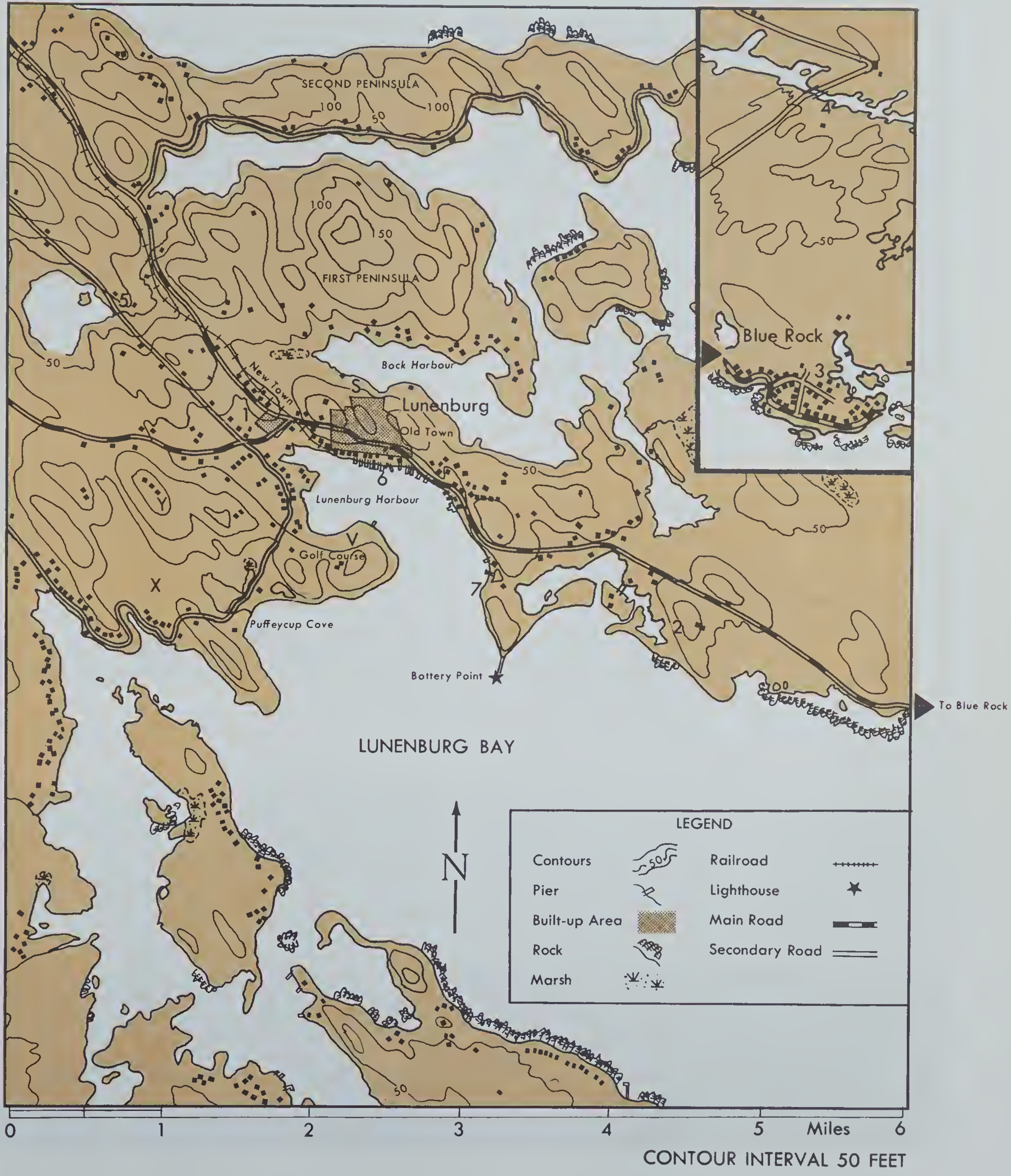
QUESTIONS:

(1) Describe the coastline after running your fingers along parts of it.

(2) Find out what a cove, a harbour, and a peninsula are. Locate these on the map as well as an island, a marsh, and a rocky coast.

(3) Write a description of the coastline around Lunenburg using the terms in question 2.

FIGURE 24.


SECOND PENINSULA
100
50
100
FIRST PENINSULA
100
150
Bock Harbour
New Town
Lunenburg
Old Town
S
1
5
6
50
Lunenburg Harbour
Y
V
Golf Course
X
7
Puffeycup Cove
Bottery Point
2
100
To Blue Rock
4
Blue Rock
3
50
LUNENBURG BAY
N
LEGEND
Contours
Pier
Built-up Area
Rock
Marsh
Railroad
Lighthouse
Main Road
Secondary Road
0
1
2
3
4
5
Miles
6
CONTOUR INTERVAL 50 FEET

(4) How is the area around Lunenburg affected by its being on the ocean? Turn back to figure 23. Locate some areas you think might have the same kind of coastline. Locate some areas in Canada whose land features would be very different.

Because we are looking straight down at a map it is most difficult to see heights and irregularities on the surface. What symbol do we use to represent these heights and irregularities?

Locate First Peninsula. Remember that all land heights are measured from sea level, which is taken as 0 feet.

QUESTIONS:

(1) What height is the highest ground on First Peninsula?

(2) About what level is the main road along the coast of Second Peninsula?

(3) If you were to walk from X to Y shown on the map would you be walking uphill or downhill?

(4) Measure the distance from X to Y. Would the rise between X and Y be gradual or steep?

(5) What one word would you use to describe First Peninsula?

(6) Point to other areas on the map with land much like First Peninsula.

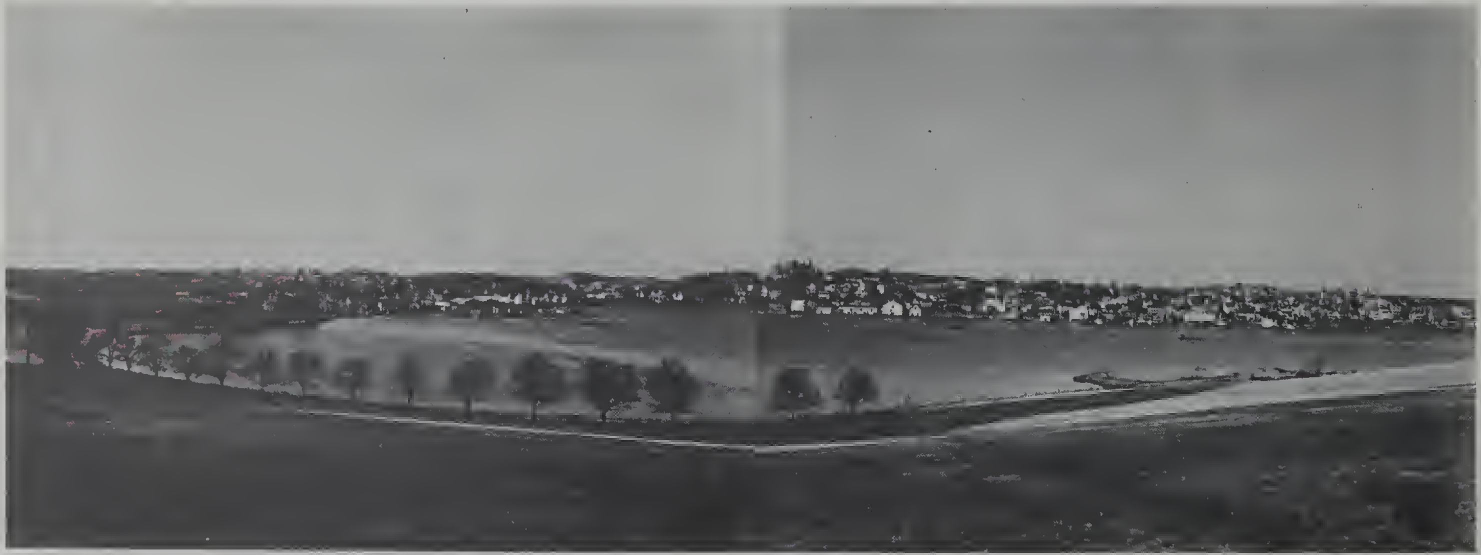
(7) What height are the docks in the town? What heights are the highest spots in Lunenburg?

(8) Make up a description of a road that might run from the point marked S in the town to the harbour.

(9) Describe the shape of the land of the town of Lunenburg.

Look at figure 25. It was taken from the spot marked V on the map. What is

FIGURE 25.



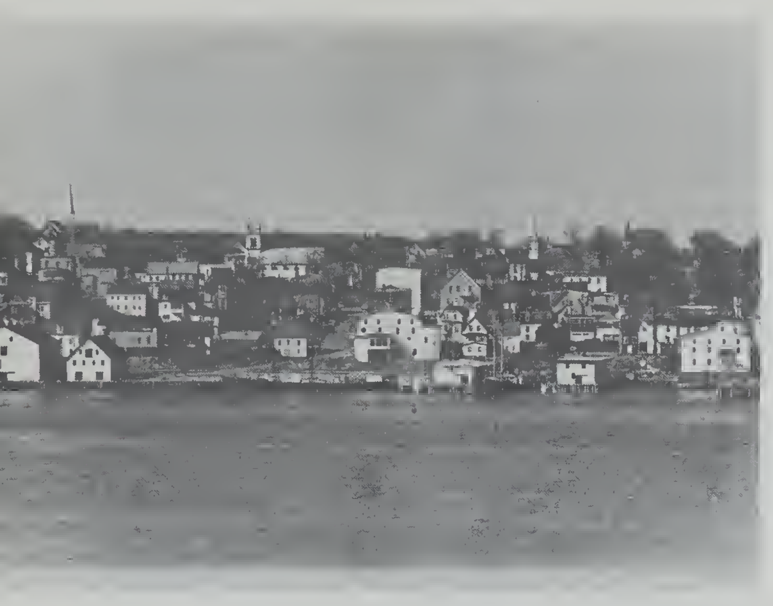


FIGURE 26.

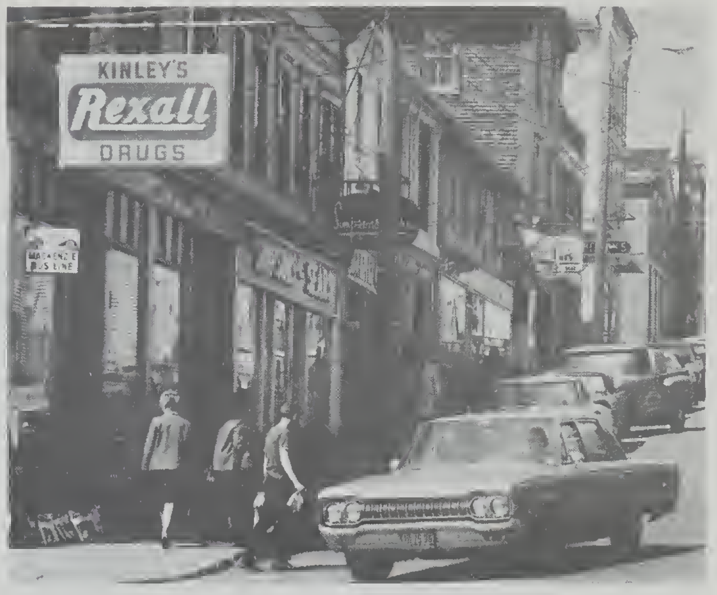


FIGURE 27.

located on the spot from which the photo was taken? Run your finger around Lunenburg Harbour on both the map and the photograph. Why is this a good Harbour?

Is Lunenburg shaped as you thought it would be?

QUESTIONS:

(1) On figure 24, find three hills in the Old Town.

(2) Now find these hills in figure 25.

(3) Look at figure 26. It shows a closer view of the centre section of Lunenburg. Find three church towers in figure 26.

(4) Locate the same church towers in figure 25. Now match the main street in figure 26 with the same street in figure 25.

(5) Describe this street.

(6) Figure 27 shows a part of Lincoln Street. It is as hilly as the streets you saw in the two previous pictures. What kind of buildings are found on Lincoln Street. Describe their age.

(7) Figure 28 shows Montague Row, quite a different kind of street. How do these buildings differ from those on Lincoln Street? What kind of buildings are they?

(8) A third kind of street is shown in figure 29. What kind of buildings are these? How do they differ from those in figures 27 and 28?

The streets and areas of a town have different functions just as the buildings have different functions. Why are most of the shops of a town in a central area? What is the advantage of having only houses in certain areas?

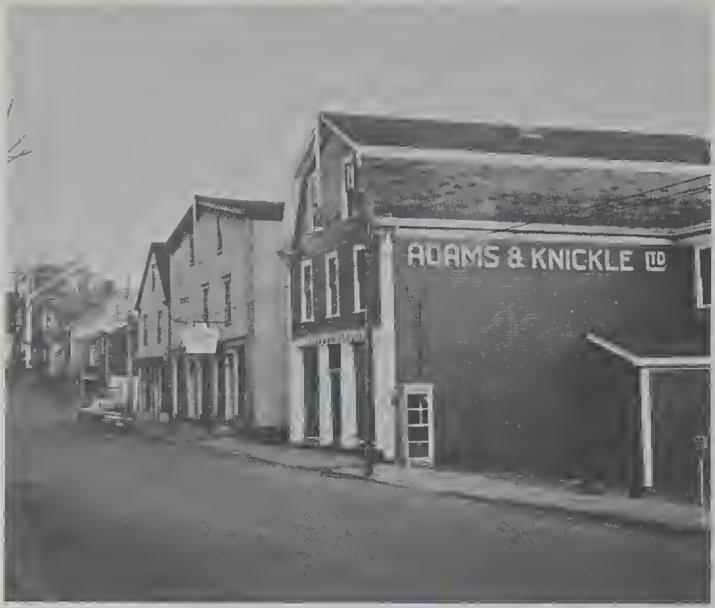


FIGURE 28.

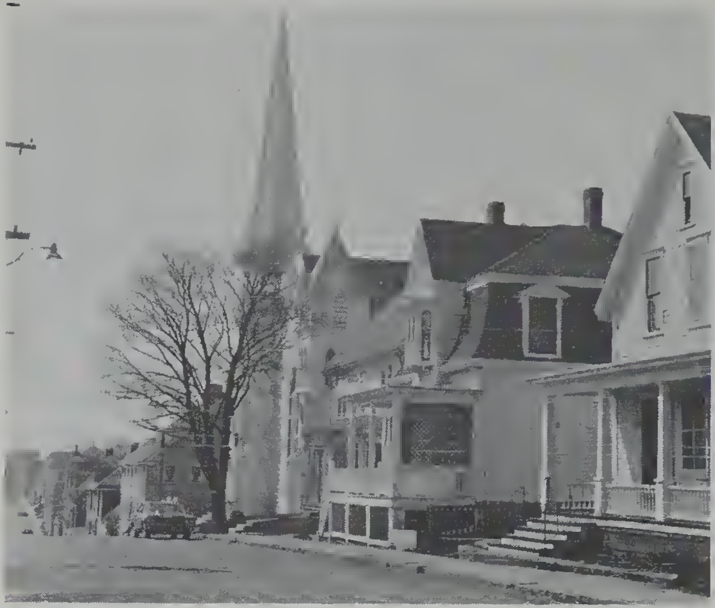


FIGURE 29.

Look at figure 30. It shows the distribution of the different areas we saw in figures 27, 28 and 29. One more kind is also shown. The pictures of the schools, the churches, and so on show the kind of functions served by these areas.

Residential areas consist of houses mainly. The *commercial* areas consist of stores and various services. The *industrial* areas include factories and warehouses. Finally, *institutional* areas are those with institutions such as churches, a firehall, schools, a post office, hospitals, and other government buildings. The key on this map shows these four areas.

QUESTIONS:

(1) Where is the main industrial area? Use street names and other features in your answer.

(2) What three transportation systems serve this area?

(3) Why is the industrial area located along the harbour?

(4) The residential section is split into two areas. Name these two areas. Which was built first?

(5) Are the streets as close together in New Town as in Old Town? Explain the difference.

(6) Why is it better if the industrial areas are not mixed into the residential areas?

(7) Does it matter so much if the residential areas are mixed with the institutional and commercial? Explain. When might this be desirable?

(8) Describe the position of the dump. Why would this be advantageous? What will likely happen to it if the town grows?

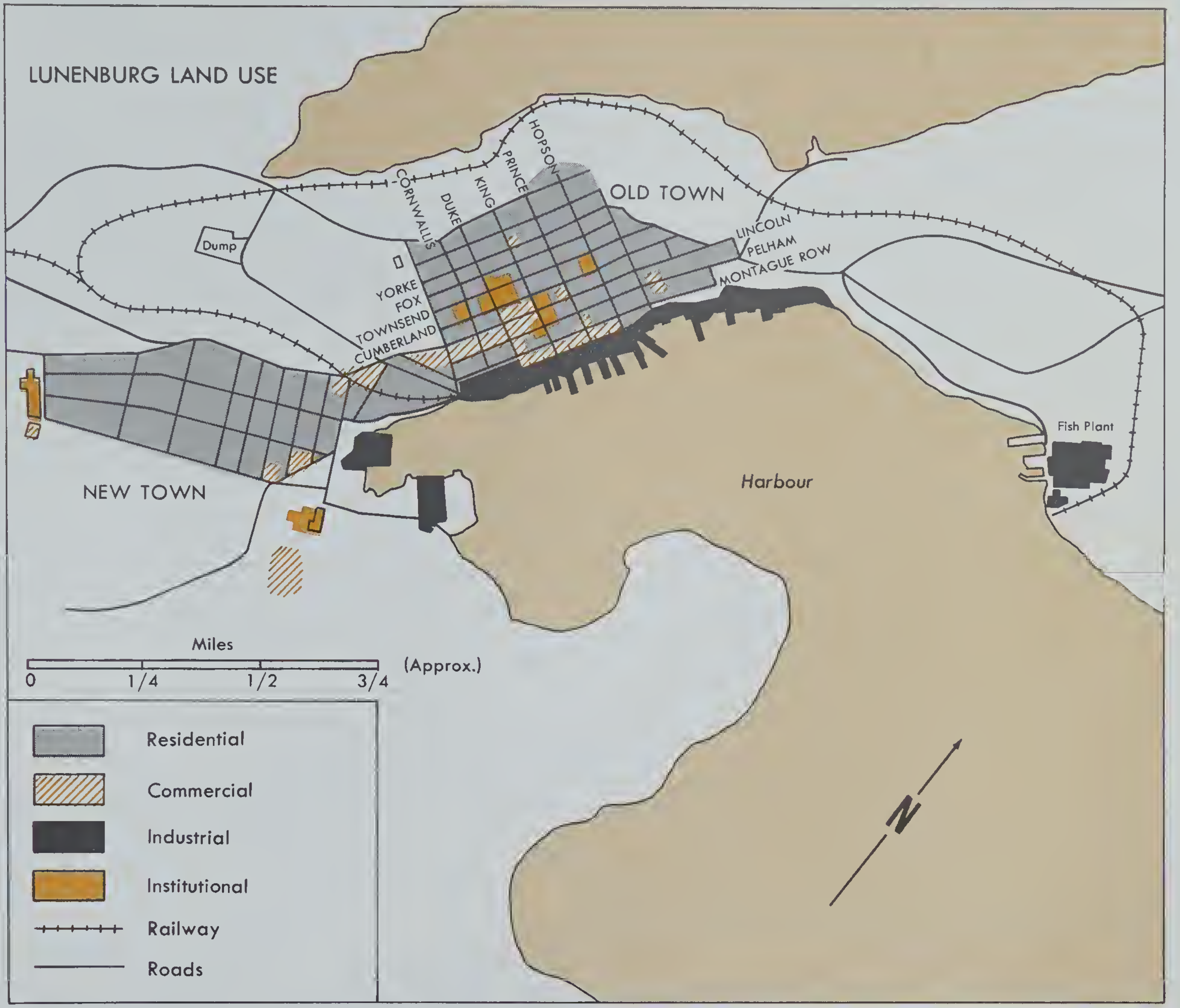

LUNENBURG LAND USE
OLD TOWN
NEW TOWN
Dump
CORNWALLIS
DUKE
KING
PRINCE
HOPSON
LINCOLN
PELHAM
MONTAGUE ROW
YORKE
FOX
TOWNSEND
CUMBERLAND
Fish Plant
Harbour
N
Miles
0
1/4
1/2
3/4
(Approx.)
Residential
Commercial
Industrial
Institutional
Railway
Roads

FIGURE 30.

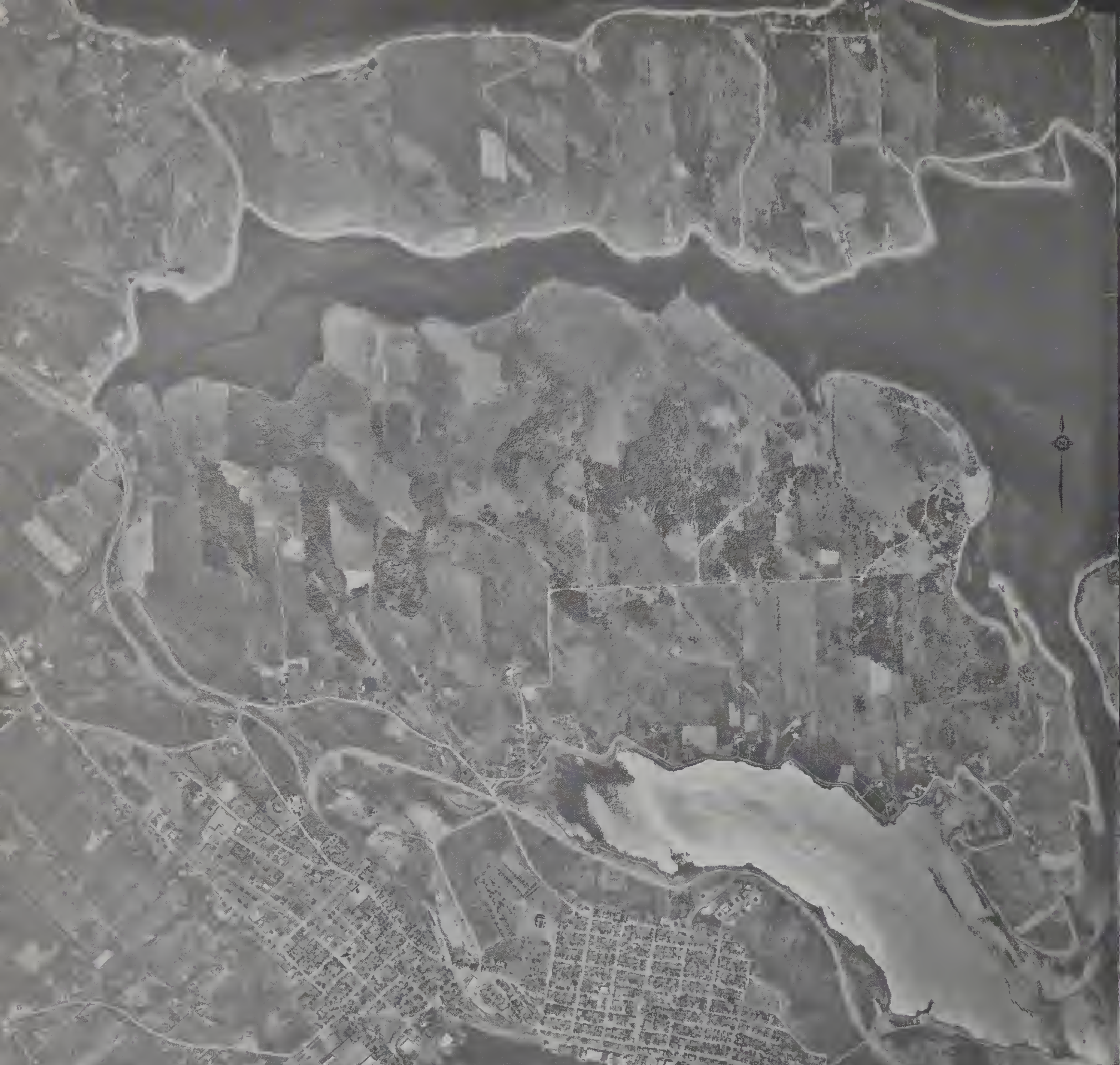


FIGURE 31.

Now let's look at Lunenburg from the air in figure 31. You should turn back to figure 24 and locate the area shown in the photograph. Find some of the main features such as the harbours and peninsulas on both.

QUESTIONS:

(1) By using figure 30 find Lincoln Street, Montague Row, and some of the other main streets in Lunenburg on the photo.

(2) Find Old Town and New Town and compare their spacing as you did for figure 30.

(3) Find the industrial areas that you studied in figure 30 on the aerial photo. Describe these areas. How do the buildings differ from the other areas?

QUESTIONS:

(1) Find the forested areas on the aerial photograph.

(2) Find what appears to you to be farm areas on the photo. Now find some of these areas on the map.

(3) Remembering your answer to question 1, what areas on the map correspond to the farming areas shown on the photo?

(4) How do the farms in the Lunenburg area differ from some of the other farm areas in Canada with which you are familiar?

Summary:

Lunenburg has two main sections, Old Town and New Town. Old Town is on the neck of a peninsula. New Town is at the end of the harbour. Lunenburg Harbour is well protected by land, which surrounds much of it. Several other harbours and coves are found along the coast and with numerous islands make the coastline very irregular.

Piers are found off Montague Row in Old Town. Most of the town's industry is found in this area which has easy access to the sea. The town is also served by a railroad and several highways.

Most of the land is very hilly, even the town, whose streets are often quite steep. Much of the land is forested. Some of the land has been cleared for farms. These farms would differ from prairie farms by being smaller and on hilly ground.

On figure 24 you will find numbers 1 to 7. These numbers correspond to the following seven pictures which are lettered a to g.

ASSIGNMENT:

(1) Match the photographs to the numbers on the map.

(2) Write a description of each area shown. If you have difficulties, your teacher can help you. By writing

a

b

c

d

e

f

these descriptions you will get a good idea of Lunenburg and its surrounding area. Would you like to visit Lunenburg some day? Why would this be pleasant? We know one man who went to Lunenburg to write a book. Why might this be a good place for a writer or an artist to live for a while?

We call what we have been describing Lunenburg's *site*. Simply, this is the ground upon which Lunenburg stands.

g

Lunenburg and the Surrounding Towns

Study figure 32 and answer the following questions.

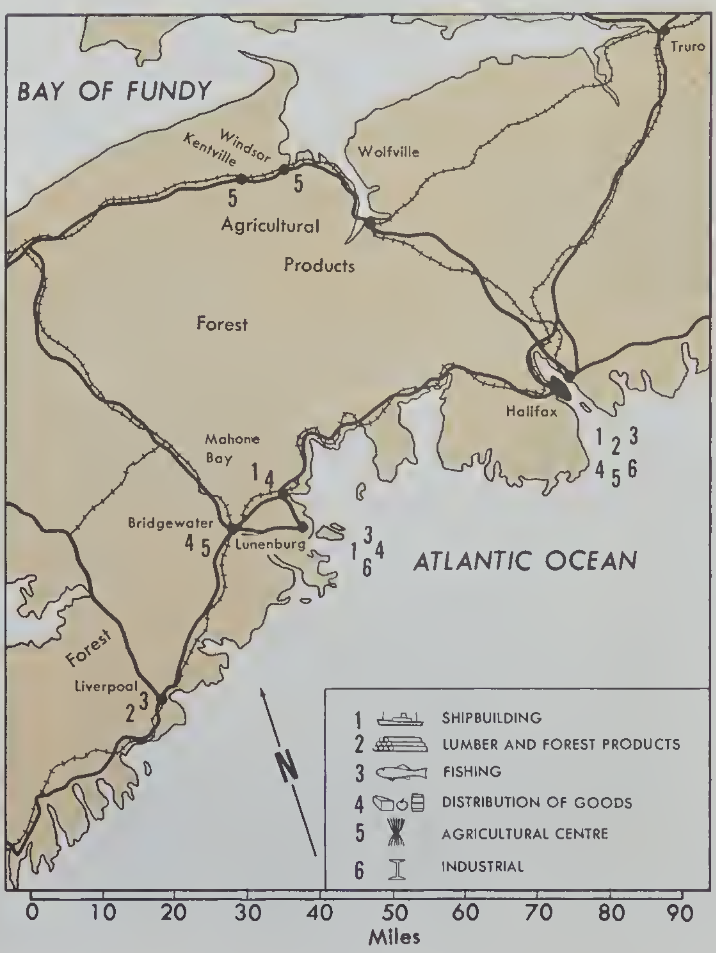
(1) Trace the main highway and the main railway from Halifax, to Liverpool . . . Where is Lunenburg in relation to these routes?

(2) Locate the major city in the area. Compare its industries to the other centres.

(3) Outside of Halifax, find the main centres of the following: (a) shipbuilding, (b) distribution, (c) agricultural products and (d) forest products.

Summary:

For a town to grow in importance, much more than site is important. A great port site is useless unless there is a need for a port. An area behind the port supplying and being supplied by the port



is needed. What two centres close to Lunenburg compete for business in the same area as Lunenburg? Look again at the map. Run your finger around the area that supplies and is supplied by Lunenburg. We call such an area a "hinterland".

Lunenburg's position among several other centres limits its growth and importance. Lunenburg was once the shipbuilding capital of Nova Scotia; the town now is far behind Halifax and feels competition from several other centres, like Mahone Bay.

Bridgewater buys a great deal of the farm produce of the area and is a distribution centre where many Lunenburgers shop.

Turn to an atlas map of Nova Scotia. What is shown growing in the large areas without towns? From figure 32, what town receives the most forest products?

The great agricultural area of Nova Scotia is the Annapolis Valley. Its products are handled at Kentville and Wolfville. The only main road from this area to the Lunenburg area ends at what town?

So Lunenburg is the centre for only the fishing industries in the area. In this it rivals Halifax. Lunenburg sells its fish products all over the district and all over Canada. Its main plant is one of the most modern in the world and its ships are among the newest and best equipped in Canada.

So it is to the sea that Lunenburgers look and have looked. Discuss how this both limits the town's growth and yet keeps the town prosperous.

Industry in Lunenburg

Quite often we can categorize a centre by one function. How would you categorize Wolfville? . . . Bridgewater? How have we decided to categorize Lunenburg?

Try to think of some centres in the following categories. If you can't find one centre for each, you should do some research.

a) a mining centre
b) a farm service centre
c) a transportation centre
d) a manufacturing centre
e) an administration centre
f) a pulp and paper centre
g) a resort centre
h) an educational centre

Of course most towns have more than one interest. Kingston, Ontario, is an educational centre but also has an aluminum plant, a chemical plant, and so on. Cities tend to have many more functions than towns, as you saw with Halifax. What was the generalization about cities and towns in terms of functions that you have already worked out?

However, each town has some reason for being. With Lunenburg it is the fishing industry. Study the table on page 25.

QUESTIONS:

(1) About what fraction of Lunenburg's workers are employed in sea products plants?

(2) Look at figure 15. What kind of construction is done in Lunenburg? What other kinds can you think of?

INDUSTRY IN LUNENBURG	EMPLOYEES	PAYROLL
National Sea Products	464	1,350,000
Atlantic Bridge (Construction)	332	750,000
Lunenburg Foundry & Engineering	224	737,000
Adams & Knickle Ltd. (Ship Owners)	150	980,000
Power Bros. Ltd. (Plumbing and Heating Contractors)	100	
Scotia Trawler Equip. Ltd.	55	
A. Dauphinee & Sons Ltd. (Marine Equipment)	9	
Smith & Rhuland (Shipbuilding)	63	215,000
Zwicker Sea Products	26	112,000

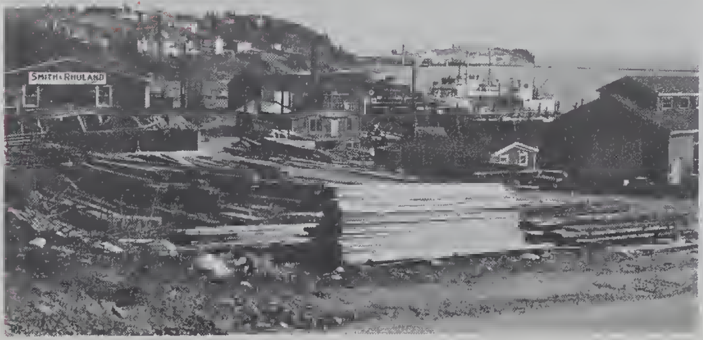
(3) What companies above would be supplied by Lunenburg Foundry?

(4) Which of the companies in the table are not directly related to the fishing industry?

Over a long time, this balance between independent producers within the fishing industry and those in industries other than fishing has helped to give Lunenburg a stable economy.

Now look at figure 33. Which of the above companies is shown here? What

FIGURE 33



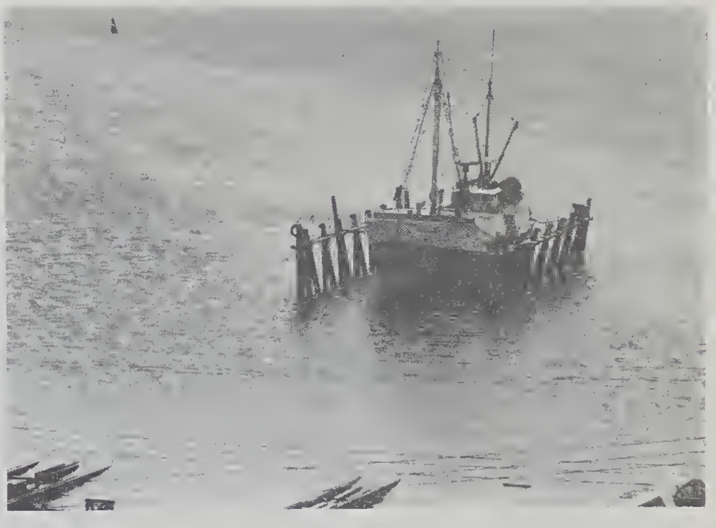
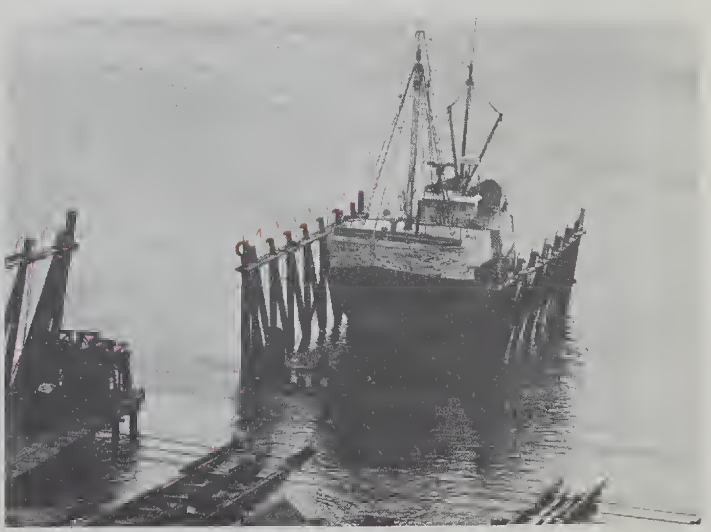


FIGURE 34 (above).

FIGURE 35 (below).



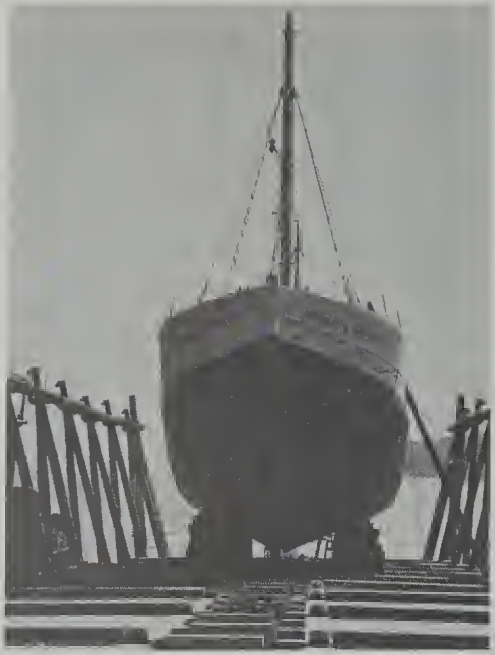


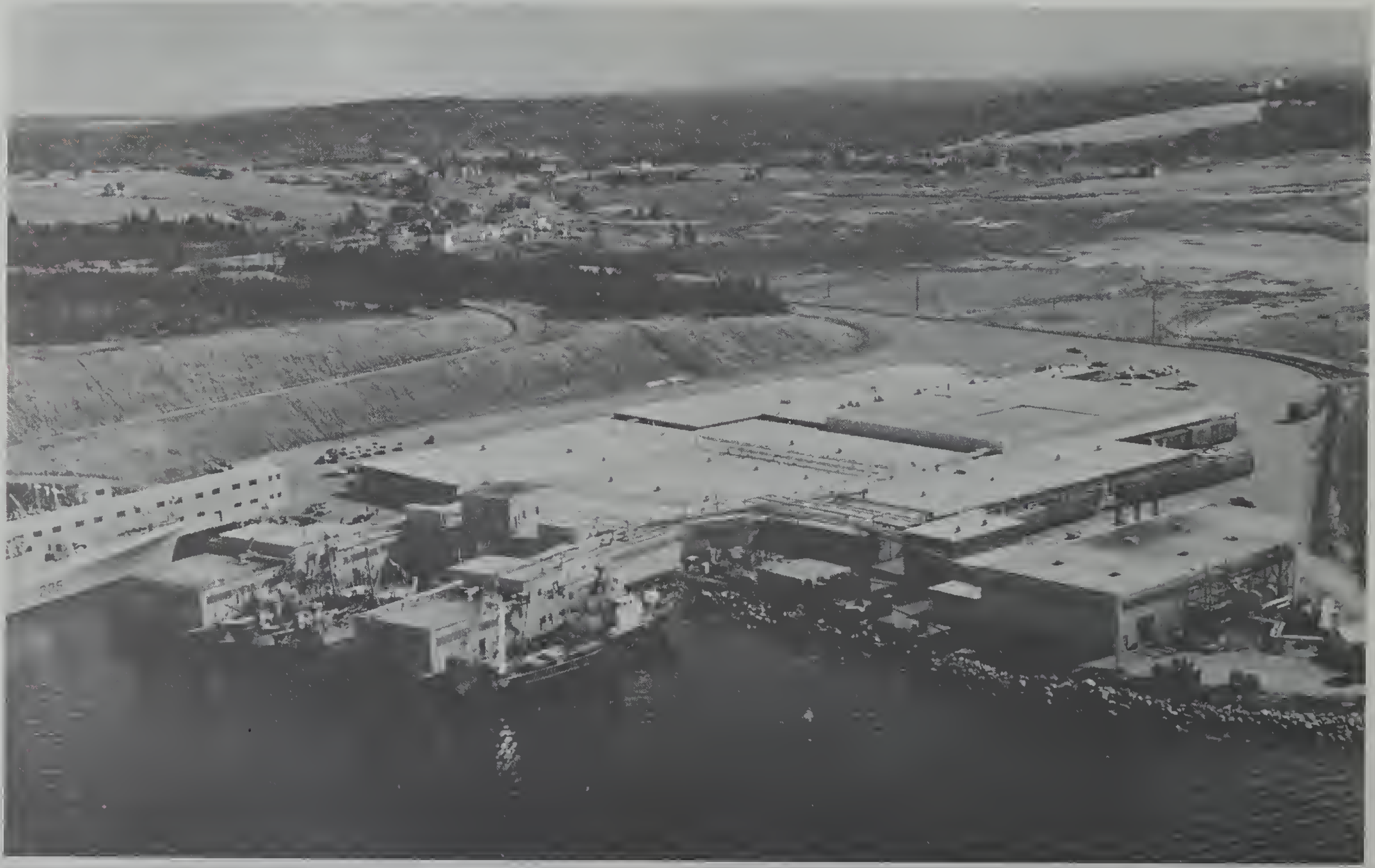
FIGURE 36.

FIGURE 37.

material is found in the foreground. What is done in this yard?

In the past years the Smith and Rhuland yards have been world famous for their ships. Now, they build fewer ships and employ fewer men. They no longer build great fishing vessels. The modern, steel vessels are mostly built in Halifax.

Repairs, refitting and the provision of docking facilities are now the most important activities in the shipyards. The ships are pulled right out of the water in "dry docks" as seen in figures 34, 35 and 36. They are painted and serviced just like a car.



The Lunenburg Foundry carries on a large number of industrial activities, both related and unrelated to the fishing industry. It supplies several firms in Lunenburg; for example, fittings to Smith & Rhuland, and steel to the Atlantic Bridge Company.

Look at figure 37.

QUESTIONS:

(1) What kind of ship is tied up at the pier in the foreground? How is the plant constructed to receive these ships?

(2) What kind of plant is this? Describe it. How large is it? How old?

(3) What two land transportation systems serve the plant?

Figure 37 shows the National Sea Products Plant from the air. It shows the plant to be very large and quite new. What facilities does the plant have to receive the fishing vessels? Turn back to the table of employment. What does this plant provide for Lunenburg? What would it provide for the Smith and Rhuland and Atlantic Bridge Companies? We will learn much more about this plant in Chapter 7. Before you answer some final questions, turn back to the photograph, figure 25, and locate the fish plant. Describe its position in the harbour and find the transportation routes that serve it.

QUESTIONS:

(1) What is the most important industry in Lunenburg?

(2) Why is Lunenburg suitable for such an industry?

(3) Explain how the main industries of Lunenburg are interdependent. How do shopkeepers, doctors, teachers, tradesmen, government workers and others in the town depend on the main industries?

ASSIGNMENT:

Make a model of the area around Lunenburg with plasticene, papier maché, plaster of Paris or any material you wish. Show the hills. Mark on some of the streets and highways, the railway and the National Sea Products Plant. You could also include the lighthouse and breakwater on Battery Point.

UNIT IV: A GOLDEN ERA PAST

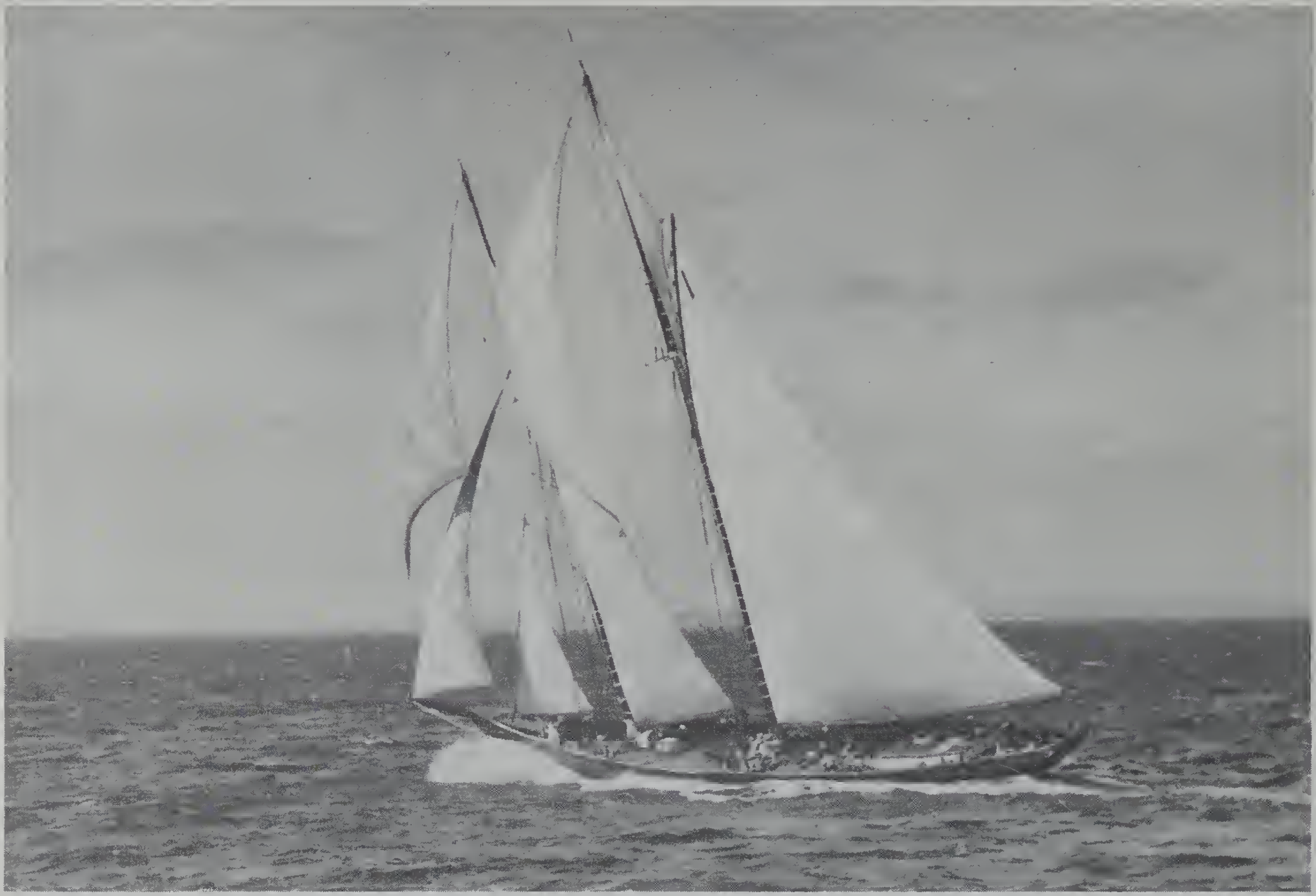


FIGURE 39.

Look at figure 39. What kind of ship is this? What power would it use to make it move? If someone in your class has a dime (except for a 1967 one) look on the back of the coin. There you will see the same ship as in figure 39; it is Canada's famous *Bluenose*. She was the most famous of all the well-known ships that came from Lunenburg.

In 1921, *Bluenose* swept over the finishing line three miles ahead of her American rival *Elsie* to win the International Fisherman's Cup. After that first victory, she never lost the cup.

Judging by the name of the cup, what else do you think these ships did? Yes, they were excellent fishing vessels too. In fact, they couldn't enter the races unless they had proved they were good on the fishing grounds.

Lunenburgers drew on many years of experience to build *Bluenose*. The Smith and Rhuland yards had built 119 ships before she was built in 1921. In those days, Lunenburg harbour looked much like you see in figure 40. Where the names are lettered across the back of the ship, called the *stern*, you can see the three rings that were a sure sign that the vessel sailed out of Lunenburg.

To understand the way the fishing industry was we should know something about these ships. Nova Scotians began to build many of them in the mid 1800's to fish the Northwest Atlantic. They had to be fast to compete with ships of other nations. They had to be large to carry a lot of fish, and seaworthy to stand the storms. These were the *schooners* (*pronounced* skooners).

We talked to a former captain of a schooner, Captain Roly Knickle. We asked him about fishing in the days of sails. Before you meet him, you should know how to name the parts of a schooner.

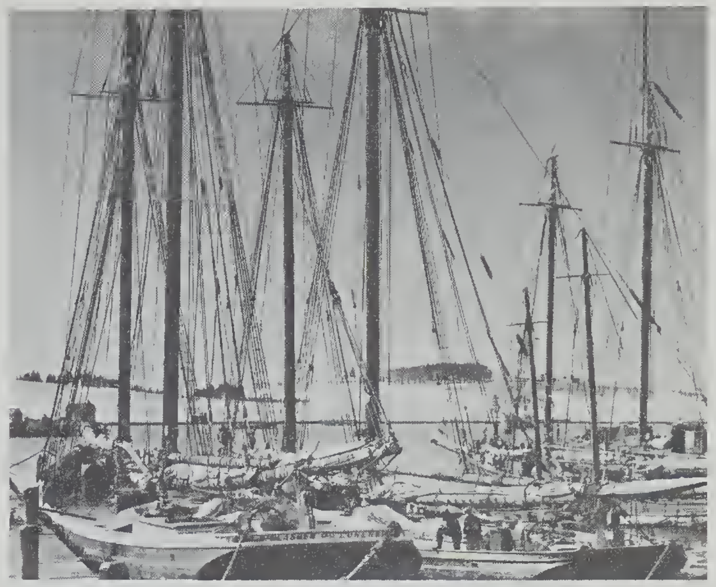
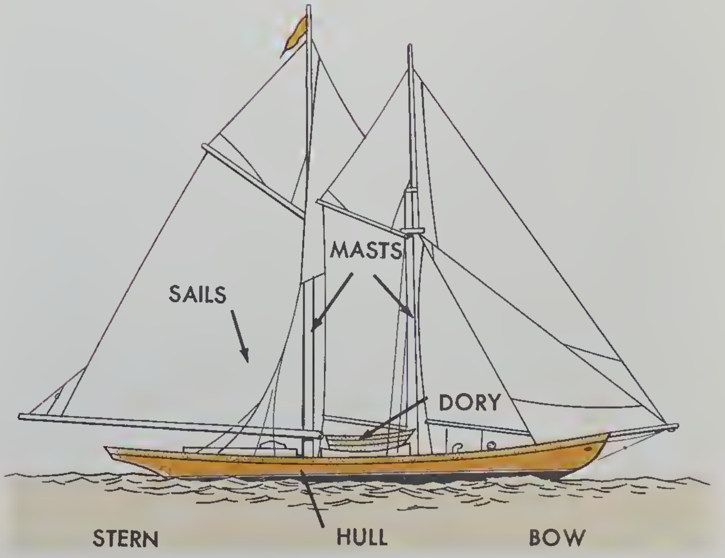


FIGURE 40.

FIGURE 41.



QUESTIONS:

(1) What are attached to the masts? What is their purpose?

(2) What is a dory? What was it used for?

(3) What are the ends of a ship called?

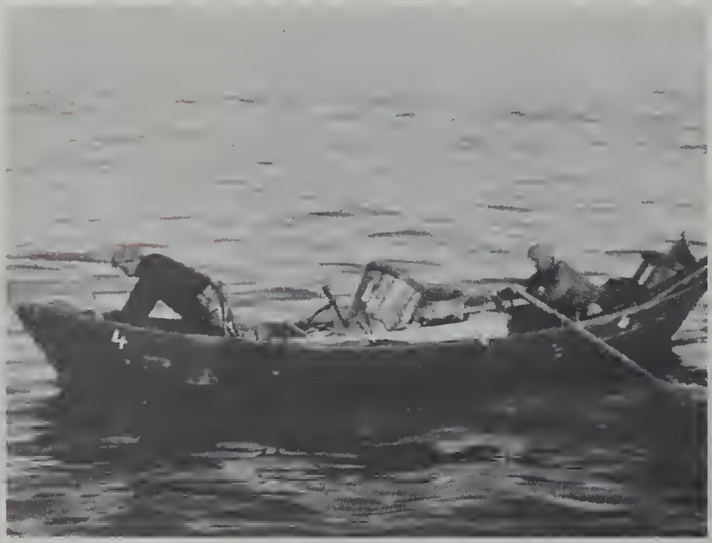
Captain Knickle: Schooners go back to 1767 or so, but I can tell you my story better for the year 1899, when I started with my father on my school vacation.
Question: You went out with your father as a young boy?

Captain Knickle: Yes, my father was skipper (captain) on the *Milo*. I was just out on my vacation, looking around and blowing the horn different times in the thick fog while the dories were out fishing. Those times they fished differently from what they did later on.

We'd fish in the spring. We'd call it a spring trip. We'd fish for fresh bait from the Magdalen Islands. And then in the summer (in the last of May and the first of June) we'd land our first catch. Then we'd go down to the Grand Banks off Newfoundland where we could catch squid. Probably you know what squid is; it's used for bait. After 1915, the squid got scarce for some reason, and we'd have to land every ten days or so at St. John's for bait. Before we only had to land about every five weeks for water and supplies.

Sometimes, it was five months before we brought the fish back to Lunenburg.

FIGURE 42.



(1) Trace figure 23 and on it mark one of Captain Knickle's fishing trips.

(2) For what reasons did the schooners stop at St. John's? Why would they stop there instead of, say, Halifax?

(3) How did the Captain start going to sea?

Question: The way I understand it, the schooner lets out the dories to fish.

Captain Knickle: Well, what happened, we'd go to the Banks, you see, then we'd anchor. Then we'd put the dories over the side. Each dory had two men on it. Each schooner in the earlier days had six dories; later, they had eight or ten dories. But it was always the same kind of fishing. The schooner would let out the dories and the dorymen would lay the long lines with hooks, called *trawls*.

If the fish stayed, the schooner and the dories would stay there the whole week. About four times a day they'd go for their trawls and take the fish off. They'd come back for new bait, have their lunch, and go back out again.

Question: Did the men row the dories out?

Captain Knickle: Each dory had a sail. If the wind was right, they'd sail down the trawl. If not, they rowed.

Question: Did the dorymen pull the lines in all at once?

Captain Knickle: They used to do what we called "underrun it." They'd just haul one end up and put the dory under it, pulling the trawl up as they went along. One fella would take the fish off, the fella in the stern would put new bait on. They'd leave the trawl right there as long as there were fish there.

Figure 42 shows two dorymen as described by Captain Knickle. They are laying out their trawl. What kind of life do you think these men led? On what kinds of days would it be better than others?

You can get some idea of the sea and the weather from figure 43. The doryman is just pulling in a large cod. What kind of clothing is he wearing to protect himself? Even with such clothing, the men got cold in the North Atlantic. In fact, the word "bluenose" was first used to describe Nova Scotia fishermen, whose faces were often blue from the cold.

Look at figure 44. Do you know what this object is? Describe it. What is the flat darker part at one end? As you read on, you will find out more about this object. It was the most important item to thousands of Nova Scotians and Newfoundlanders for hundreds of years.

Question: Captain Knickle, what was the main catch?

Captain Knickle: Cod. In those days it was all cod. That's with the salt fishing. What happened, you'd bring the fish on board, and then we'd have our dressing crew go to work: a fella to cut the heads off, a splitter who cut the fish down the middle and flattened it out, and a salter.

They worked right on the schooner. As the dories landed they'd clean these fish up, wash them and put them down in the hold. They'd be salted right on board. That's why you'd stay down there three months on the one trip. We'd use the schooner's hold as storage space.

Now turn to figure 45. These fishermen have caught the cod in smaller inshore boats and are salting them on land. Why do you think they salted fish? If you think that Captain Knickle was out

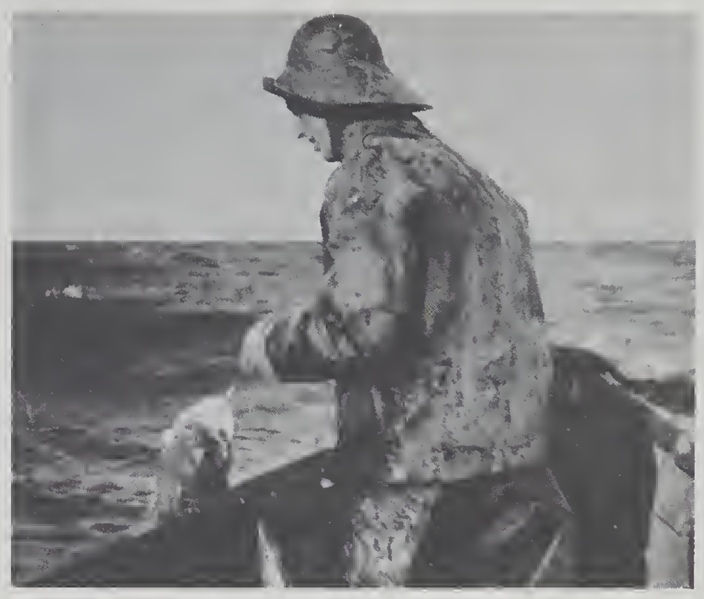
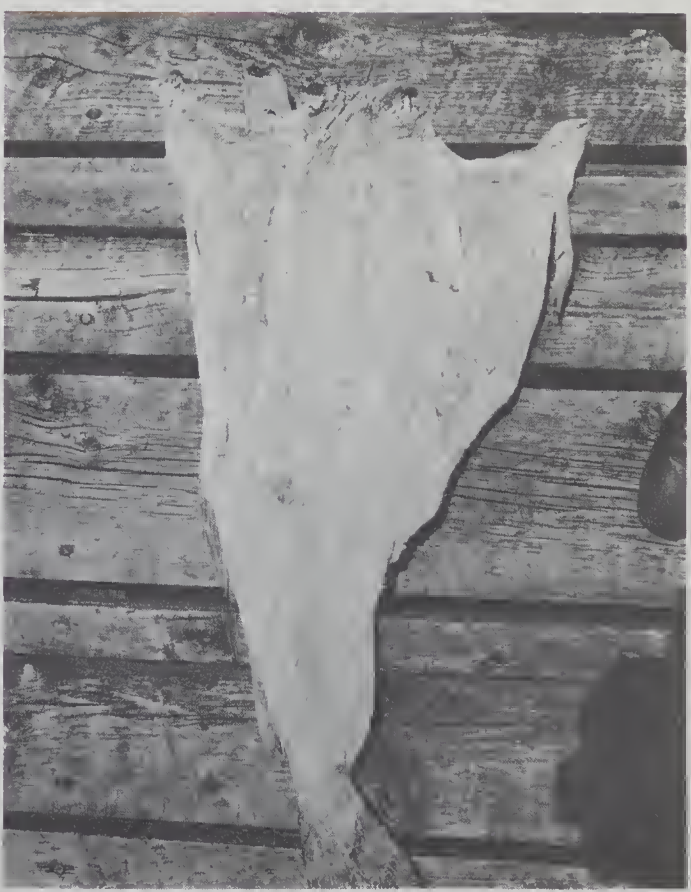


FIGURE 43.

FIGURE 44.



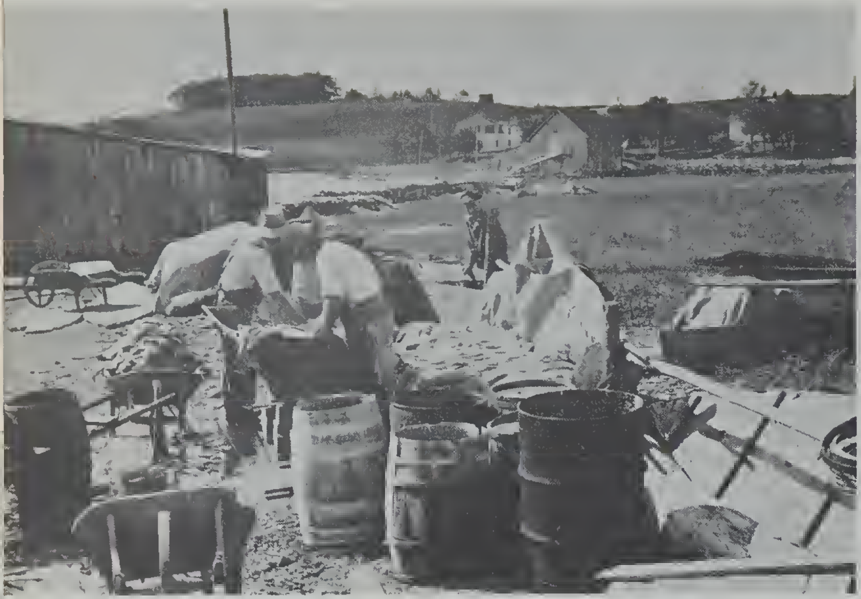
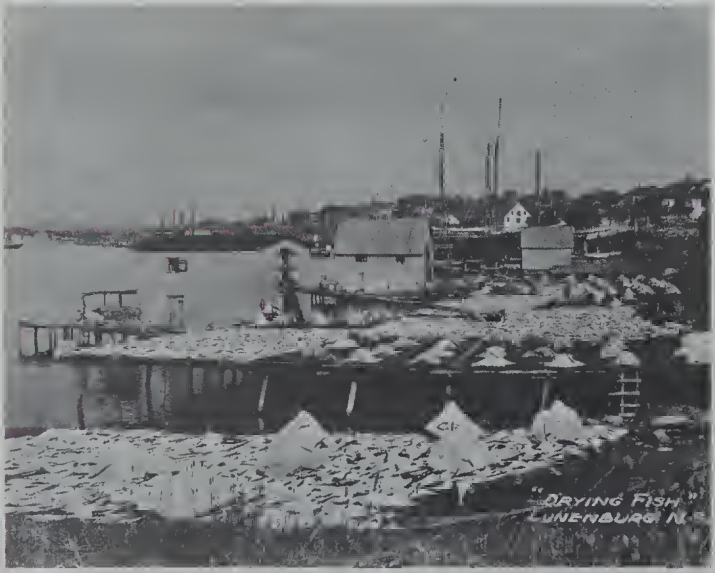


FIGURE 45.

for three or four months with a load of fish that were still good for eating when he returned, what does it appear that the salt did?

Study figure 46. It shows Lunenburg Harbour more than fifty years ago. What are the objects laid out on the wharfs? What is this second way of preserving fish? Dried cod, like salt cod, could be transported all the way to Europe, or to the West Indies.

FIGURE 46.



(1) When salt is expensive, what would be the advantages of drying fish?

(2) In a climate in which it might rain any time, what would be the advantages of salting?

(3) Looking at the amount of space taken up for drying cod, what would be another advantage of salting?

Settlement in North America was first started by the fishermen. For hundreds of years, French ships fished the Banks and returned home with their fish. They stopped on land perhaps only for water. What method of preserving must they have used?

England had very little salt, and so English fishermen were forced to land in North America. What method of preserving would they have used? Why would they have to land for long periods of time?

You are going to be surprised that this is not the way Lunenburg was established. In fact, it was not for fishing at all that the town was built! But you will be able to learn more about that later.

Question: Captain, was the kind of fishing done out of Lunenburg typical, or representative, of that done out of the other towns of Nova Scotia?

Captain Knickle: No, Lunenburg was the most important town of all. There were a few vessels out of Mahone Bay and Riverport had eight or ten; but they would all come to Lunenburg to be outfitted.

Question: In the 1880's, Nova Scotia had about 200 fishing vessels and about 120 were out of Lunenburg. I guess that must have been Lunenburg's "golden era?"

Captain Knickle: That's right. Lunenburg was the centre.

Question: Why was that?

Captain Knickle: That goes way back. The first German settlers were farmers. Later they took to trading and then to fishing. They discovered that this was a good fishing port, and that's how it started.

The following table shows the origins of the first settlers of Lunenburg County.

COUNTRY	NUMBER
Southwestern Germany	1,327
Northern Germany	233
Switzerland	316
Other Countries	568
Total	2,444

(1) Where did most of the settlers come from?

(2) Locate each of the three main places in an atlas, or on a globe. Describe their positions. How many are on the sea?

(3) Do you think these people would be good fishermen? What would you guess to be their occupations in their own countries?

Indeed, when the German settlers were brought to Lunenburg by the British, it was to farm. Look at figure 47. It shows actors playing the landing of the settlers in 1753.

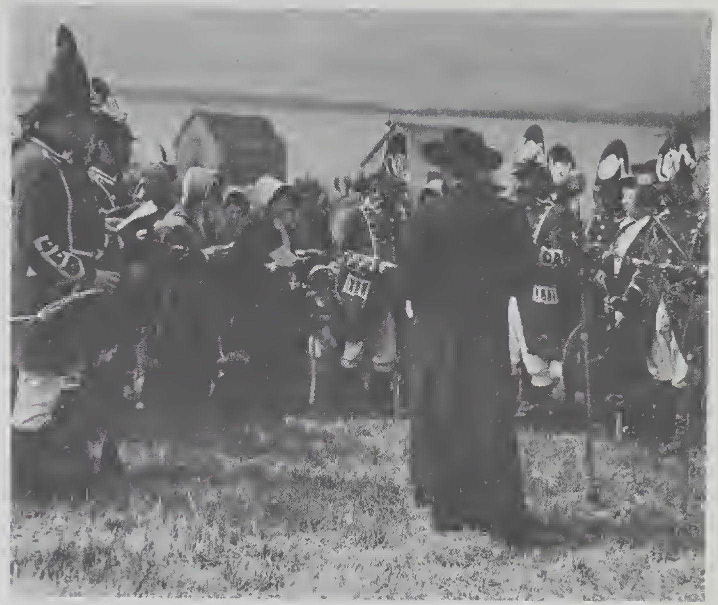


FIGURE 47.

(1) How many years ago did the settlers come?

(2) What are the men on the left holding? What are these men? Why were they needed?

(3) What is the man standing in the centre? What is he doing?

It was not only the catching of fish but also the salting and drying that the settlers were unfamiliar with. By 1767, Lunenburgers had still not taken to fishing. Other towns in the area were showing large fish productions, even little Chester. But Lunenburg had become the main supplier of wood and farm products for the capital, Halifax. Because of the poor condition of the roads to Halifax, most of this produce was taken by ship. In this way, Lunenburg became a port. It was as traders that Lunenburgers took to the sea and learned to build ships.

When it became profitable for Nova Scotians to fish, in the 1900's, Lunenburgers had the experience to build the fine craft necessary to fish the Banks and visit the markets of the world. Since the days Captain Knickle sailed, many generations have taken to the sea.

Question: Captain Knickle, how did you get to be a skipper?

Captain Knickle: Well, just by being with my father. He showed me. Those days you didn't have any electronic stuff. You had a sextant, to take the sun bearing; and a chronometer, and you had to do all your figuring yourself. You had a ship's log and you used a lot of good judgement.

Question: What were a skipper's responsibilities?

Captain Knickle: To find the fish and get them and the ship and men back to port.

Question: Could you describe one of your trips?

Captain Knickle: Well, in the summer we'd go salt fishing, like I said, to the Magdalen Islands, St. John's, the Banks and back to Lunenburg.

In the winter time we'd charter and go south, or wherever. For instance, in 1916 I sailed the schooner *Vivien P. Smith.* That fall we went to Sydney and took on a load of coal for St. John's. From St. John's we took a load of fish for Genoa, Italy. But in fact, we ended up in Valencia, Spain. We got a few hundred miles into the Mediterranean when we came on a Norwegian crew who had been submarined. We took them into Valencia and that's as far as we were allowed to go, the submarines got so thick.

We stayed there over Christmas in Spain—wonderful time, beautiful country, climate about seventy all year around. We discharged half our cargo there and were sent about 100 miles down to Alicanté . . . and discharged the other half. After that we sailed to Málaga Spain, and took on a load of salt.

So that's how we'd go. Salt fishing in the summer and in the winter we'd charter and go either to Europe or the West Indies, take the salt first to them: Barbados, Puerto Rico, Jamaica, Spain, Italy.

FIGURE 48.

(1) How did the Captain get to be skipper? What do you call what is handed on from generation to generation?

(2) In your atlas trace the trip Captain Knickle described.

(3) What did the schooners do in the summer? For what were they used the rest of the year? Why would they be good for this?

(4) How might Captain Knickle's life affect his family?

The schooners were great fishing vessels and swift cargo vessels. They were the pride of Lunenburg. The sailors were proud of their ships and usually remained on them for many years. Figure 48 will give you an idea of a schooner at sea. Could you handle the ropes and sails that you see? Why?

Captain Knickle: The last schooner I had built was the *Andrea* in 1925. That was the year of one of the big hurricanes off Sable Island, you probably know where that is.

Question: The graveyard of ships?

Captain Knickle: Yes. We happened to be right there among the fleet. With good judgement and a lot of luck we made it through the raging storm.

At the same time, a cousin of mine lost his ship and all hands. Another vessel of the W. W. Smith Company was lost, along with the *Columbia*, an American racer. A hundred and twenty men were drowned. We were the only ones to escape. Our dories were lost and our sails ripped away.

Question: There was always the danger of a storm, was there?

Captain Knickle: Yes, our trouble was then, you see, we never had any auxiliary power and we'd fish close around the dangerous Sable Island Bar, because that's where the fish were. We didn't have any radios to let us know about a storm coming. So we were often caught at a place where we shouldn't have been. Once you were caught in a hurricane, you couldn't get out. The year before the hurricane, as I mentioned before, we had four boats lost; the whole crews went too.

Question: When did the era of schooner fishing end?

Captain Knickle: With the end of salt fishing, after the Second War, and with the introduction of the *Cape Le Havre* and the *Cape North*, two draggers. They are power-driven vessels that haul the fish in with big nets that are dragged along the ocean floor.

Question: What advantages has a dragger over a schooner?

Captain Knickle: You see, it's a different kind of fishing. The draggers go out for short periods, and bring back fresh fish. Also, on a dragger all the men are always on deck. After the draggers started being used, the schooners till tried to keep up. But the schooners still had to send the men out in dories, and if it breezed up, there was the chance of losing some men. It was especially bad in snowstorms or fog. After a while, the men would not go. They wanted to stay on deck, and the schooners were finished.

The last schooner was the *Theresa Connors*. On her last trip, she went to Newfoundland to pick up a crew, but she had to come home. Her skipper couldn't get anyone to go out in a dory anymore.

Question: That was the hardest of all was it, the dory fishing?

Captain Knickle: Yes, especially in the winter, with the snow and fog. After 1935, the schooners started to fish for fresh fish in the winter. You'd go out in the morning and it'd take you five hours to set out your trail. Between daylight and noontime you didn't know what would happen, especially in January.

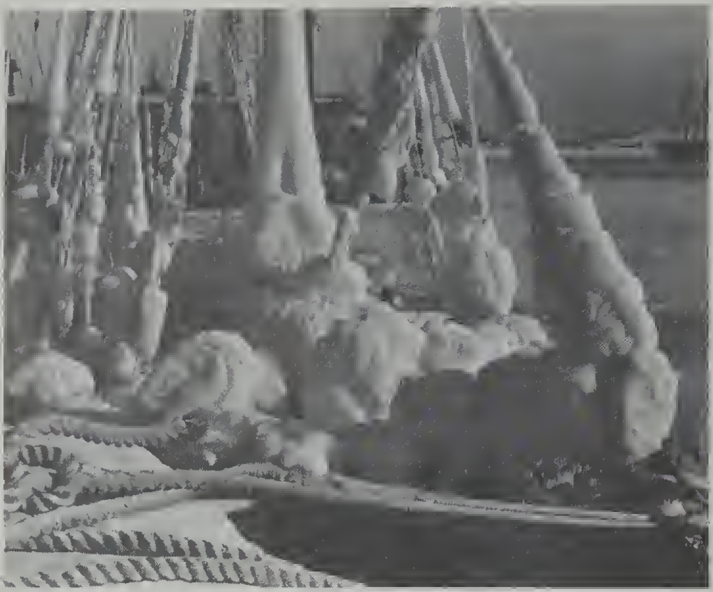


FIGURE 49.

Figure 49 will help to show the dangers of winter fishing. It is still a problem with modern draggers, but it was even worse for the schooners.

(1) What were some of the dangers in schooner fishing?

(2) Why would not the crew of the *Theresa Connors* go out in her dories again?

(3) Why did the schooner era end?

Question: How did the men view their life as you have described?

Captain Knickle: Oh, they enjoyed it! There was just nothing else to do. We had the best fishermen in the world. We were fishermen. You couldn't get educated. If you got to grade seven that was about as far as you could get.

We hardly earned enough to get by on. That's why we had to be good fishermen. We were brought up fishermen and we stayed fishermen. There was no other way to look at it.

Today, they're making more money and are able to send the younger generation to school. They're sending their boys to college.

Question: So the young people now, instead of being forced into fishing, are able to move out.

Captain Knickle: That's right.

Question: You know, people outside Lunenburg often look on the days of the schooners as a romantic, exciting era. Is that how you look on it?

Captain Knickle: Sure, that's the way I look on it. It was very romantic. You know when I fished out of Gloucester, we'd go down in the spring of the year, in April, down as far as Florida or Georgia and go mackerel fishing. Some mornings, a fine morning, you'd see twenty schooners under way, their white sails billowing—it was a beautiful sight!

However, all that remains of the schooner era is not memories and the *Theresa Connors*. Many things change, but many things remain the same. Lunenburg is still a great fishing centre. Gone are the days of white sails and straining masts and the excitement of the race. But also gone are the lonely dory trips, and the dories that never returned.

QUESTIONS:

(1) Why did Lunenburg become a great fishing centre?

(2) Why is Lunenburg today a great fishing centre?

(3) Make a large mural in your corridor to show the operations of the schooner fleet in the "golden era" of Lunenburg's past.

UNIT V: MEETING AN "INSHORE" FISHERMAN

QUESTIONS:

(1) Look at figure 50. Do you know what the objects stacked behind the man are used for? What do you think this man does for a living?

(2) Look at figure 51. Describe the two boats. Explain why you think these boats could or could not, go on long sea trips. What do you think these boats are used for?

(3) In figure 52 what are the objects strung out beside the road? Why would they be hanging there?

(4) Figure (c) on page 22 shows part of the settlement we are visiting. Describe the construction of the buildings. Which are houses? What might the others be used for?

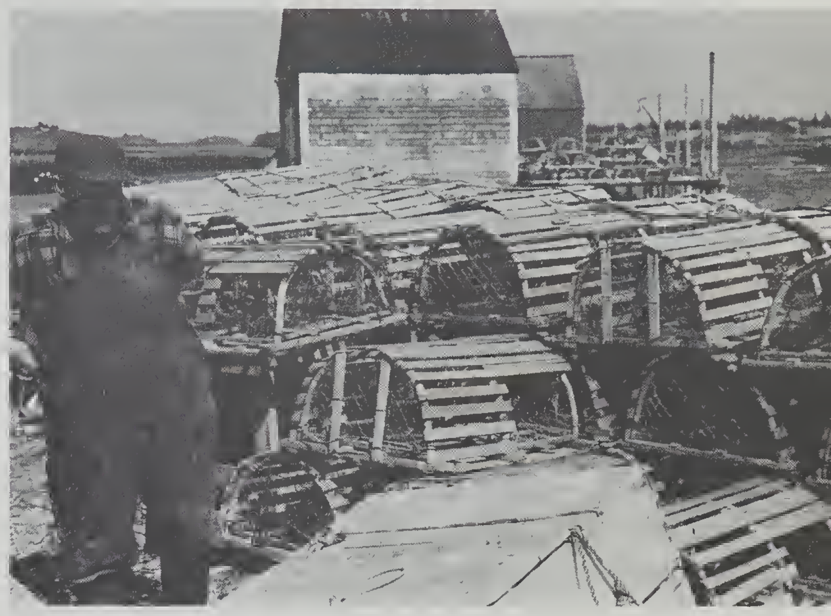
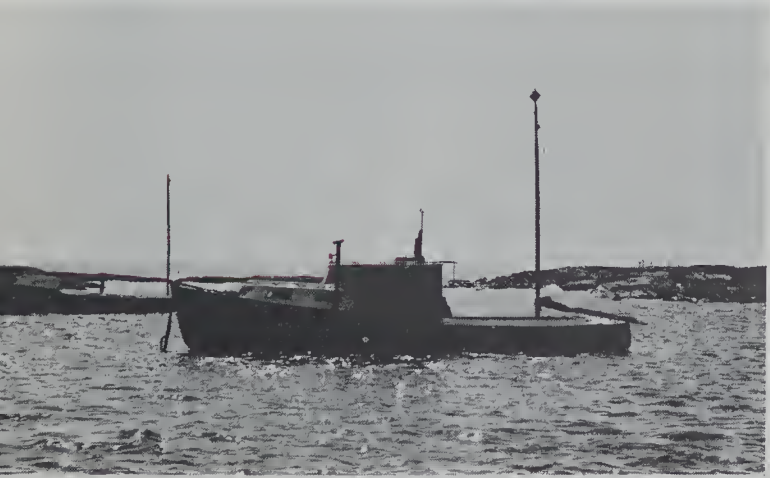
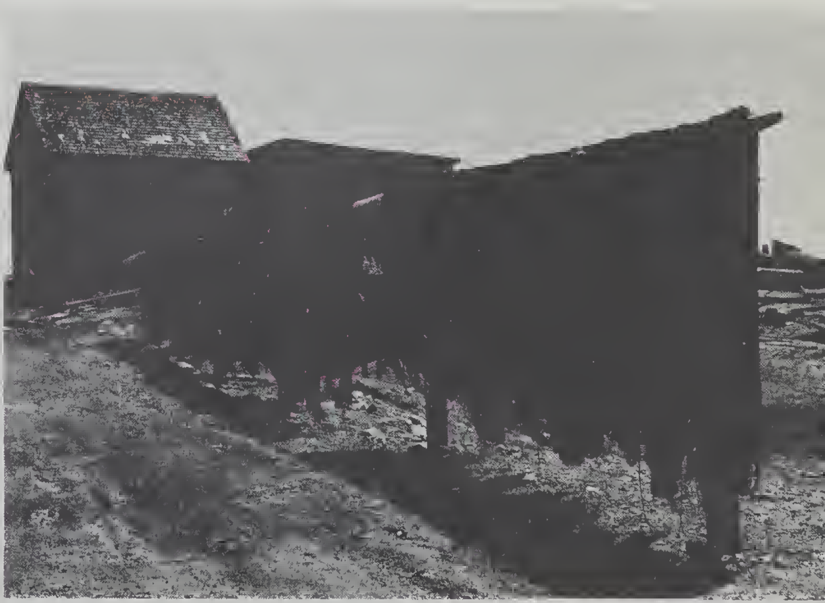


FIGURE 50.

FIGURE 52.

FIGURE 51.





As you have probably guessed, we are visiting a small fishing community. It is just outside Lunenburg. It is called Blue Rock. Locate this village on the map of Lunenburg inside the front cover.

Two boats are anchored just offshore in figure 51. Compare them with other ships studied so far. Are they built to travel great distances or to catch a great deal of fish? They are smaller craft used for fishing within ten miles off the shore. Because they fish near shore, fishermen using these boats are called "inshore fishermen."

For hundreds of years, before the sailing schooners and now after them, fishermen all along the coasts of the Atlantic made their living from this kind of fishing.

We are going to meet two of these fishermen in this chapter, and while we talk to them, you should consider the following questions:

(1) What are the methods of fishing they use and what are their main catches?

(2) What kind of life does an inshore fisherman lead?

(3) What are some of the main problems an inshore fisherman faces?

Question: Mr. Greek, just what does an inshore fisherman do?

Mr. Greek: Well, first, there are the nets, twine, and other equipment to get ready.

Question: How long would that work take?

Mr. Greek: From January to the first of April. From then on, he gets his boat ashore and paints it, and then he goes lobstering. Whenever the weather permits, he sets his lobster traps, whether it's a hundred or only fifty of them.

Question: Is lobster fishing done all year around?

Mr. Cockrum: No, lobster season starts the first day of December and stops the last day of May.

Question: Is that by law?

Mr. Greek: That's by law. From May 20 on he depends on mackerel fishing.

Question: How has the lobster fishing been?

Mr. Greek: Well, the last seven or eight seasons haven't been so good. Skin divers have hurt lobster fishing and so have harbour fishermen who use their holidays or spare time to go lobster fishing. This cuts into our fishing industry. Our laws are trying to protect us here, but they aren't going deep enough into it.

Question: Is there a minimum size lobster you can bring back?

Mr. Cockrum: Yes, the law made a good number of years ago states that a lobster must be $3\frac{3}{16}$ inches from the back of its eye to the end of its shell. It must weigh about a pound.

Question: How far out do you go for lobsters?

Mr. Cockrum: From about two miles to five and six miles.

Question: I guess it gets pretty dangerous sometimes?

Mr. Greek: Yes it gets very rough at times. Often, storms destroy nets, traps or other equipment. But you have to take that chance.

The two fishermen show us what happens to their equipment in a storm in figure 53. You saw what a lobster trap looked like in figure 50. We will now study from the next picture and diagram how a lobster trap works. Have you ever seen a live lobster? If you have you will realize that a lobster is not the same as a fish. It crawls along the bottom of the sea. Mr. Cockrum shows us in figure 54 where the fisherman hopes the lobster will crawl, for if it does it will be caught in the net as you can see from the drawing. Describe the trap and how it works in your own words from the drawing (figure 55). How would the trap be lowered?

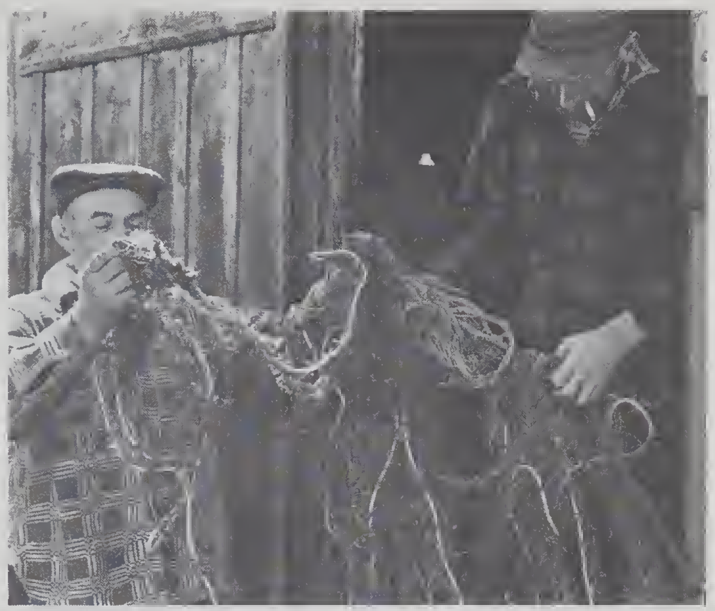


FIGURE 53.

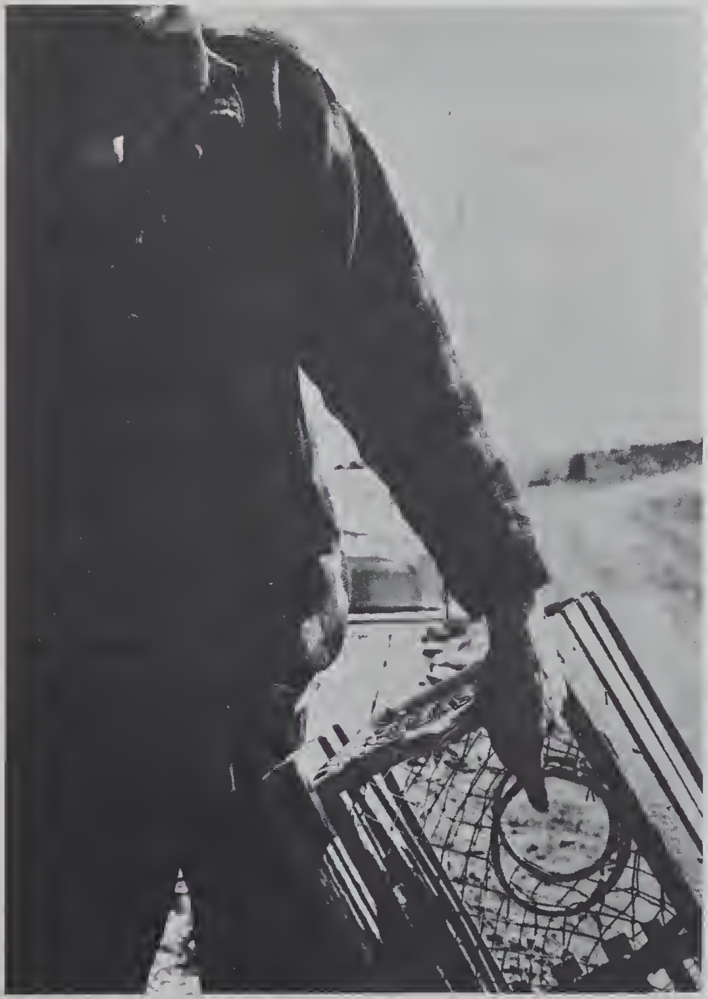


FIGURE 54 (left).

FIGURE 55.

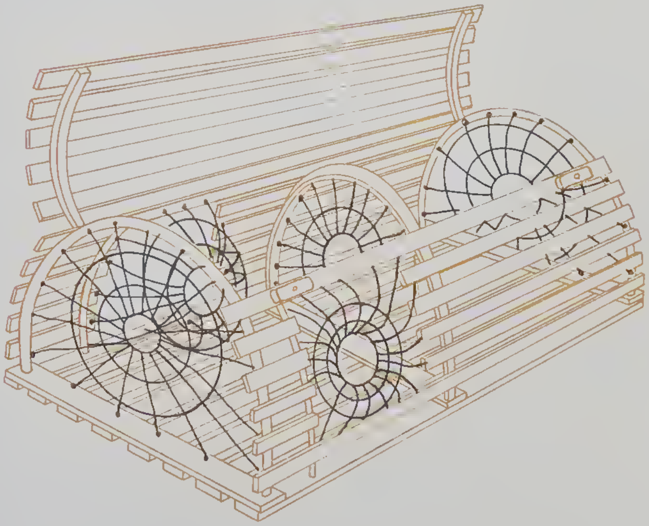


FIGURE 56.

Question: So even during lobster season, you would be repairing traps?

Mr. Greek: You try to do the repairing when the season closes. If you spend your time repairing traps you miss catching lobster, or later, you miss catching herring or mackerel.

But you know what hurts our industry most is low prices. Our prices now are about what they were in 1950. We are getting about two dollars a hundredweight for our herring: the same as we got in 1950. It's now 1968 and the world is changing, and I think our prices should be changing.

Question: Why do you get so little?

Mr. Greek: That's hard for a fisherman to say. But what I see is people paying more for herring and mackerel than in 1950. Our equipment is costing about three times more than it did, and we need more equipment now to make a living. These are some reasons the younger generations aren't going into the industry. Poor prices and eighteen hours' work a day.

Question: Not many young men are going into inshore fishing?

Mr. Greek: No. I have a son and many people right around Blue Rock have sons, and the only inshore fishing they do is maybe to catch a few lobster to eat.

Question: What does your son do for a living?

Mr. Greek: My son is an electronics man. I have one daughter married to a boss of a fibreglass plant, another daughter in Sudbury, Ontario, and one in British Columbia.

Question: Did you ever suggest to your son that he go into this industry?

Mr. Greek: I discouraged him. I said, boy, look, go into anything else but fishing. We've got no protection, no unions. An inshore fisherman takes what he is given.

QUESTIONS:

(1) Into what job did Mr. Greek's son go?

(2) Why are the young people of this community not going into inshore fishing? What else are they doing?

(3) What do you think will happen to the inshore fishing industry and to the young people?

(4) What reasons does Mr. Greek give for this?

Question: You mentioned herring and mackerel. Are these the two main fish you catch?

Mr. Greek: We fish a little cod and a little haddock, but our mainstays are herring and lobster. Since the government gave licences to the big fishing ships to catch herring, their big catches began to destroy the Nova Scotia inshore fishing industry.

Question: How do you catch herring?

Mr. Greek: We catch them in nets. (Mr. Greek shows us these nets in figure 56.) The fish swim into the nets and are caught by the gills. that's why we call them gill nets. Herring move around, from offshore to inshore. Now Russian boats are catching them offshore, so this leaves us fewer to catch when they move inshore. The government helps the farmer, the miner, the steelworker; but it isn't protecting the people of the inshore fishery.

Question: You mentioned earlier that the number of inshore fishermen had declined.

Mr. Greek: There were 32,000 inshore fishermen from Yarmouth to Newfoundland in 1956, and today, I would say there are only about 22,000. The younger boys from Blue Rock, Tancook Island and along our Nova Scotia coast aren't looking to working eighteen hours a day. They're saying we'll work eight hours, and we want the rest of our day for leisure. And you can't blame them. No protection.

QUESTIONS:

(1) Make a drawing of a fish clearly marking the shape of the gills. Now make a drawing to show how a gill net works. Why can't a fish get free once he swims into the net?

(2) What is the main fish catch? What is happening to this fish?

(3) What has happened to the number of fishermen along the coast?

(4) Do you think that the problems of Mr. Greek, Mr. Cockrum, and the community of Blue Rock are common to the other Atlantic Provinces?

Question: What time do you get up in the morning?

Mr. Greek: Well, starting the first of April, if we want to make a living, we have to work seven days a week—wishing there were eight. We get up at 4:30 or 3:30 in the morning and we never stop until the sun goes down.

Question: It's a hard life an inshore fisherman leads.

Mr. Greek: Yes, it's a hard life. And it will get worse if the draggers catch lobster off-shore. The Department of Fisheries mightn't think that sea lobster move in, but they do. With offshore draggers catching herring and dragging lobster, we inshore fishermen haven't a chance.

Question: Have you noticed a decline in lobster catches?

Mr. Cockrum: Oh yes. Five or six years ago, I could make a thousand dollars on spring lobster. This year I'll be lucky to make three hundred, and half of that'll go for buying gasoline.

Question: When I was driving into Blue Rock I noticed that the settlement was quite scattered.

Mr. Greek: That's right. The people are moving inland for jobs. A lot of people are working in town in the fish plants. My wife does.

Question: More than that I meant that the houses seemed to be spread out all over the area.

Mr. Greek: Yes, everyone has a little settlement, house, storehouses. A person has to get as close to the water as he can.

Question: Well, lastly, I'd like to ask you again just how you think the government could help you.

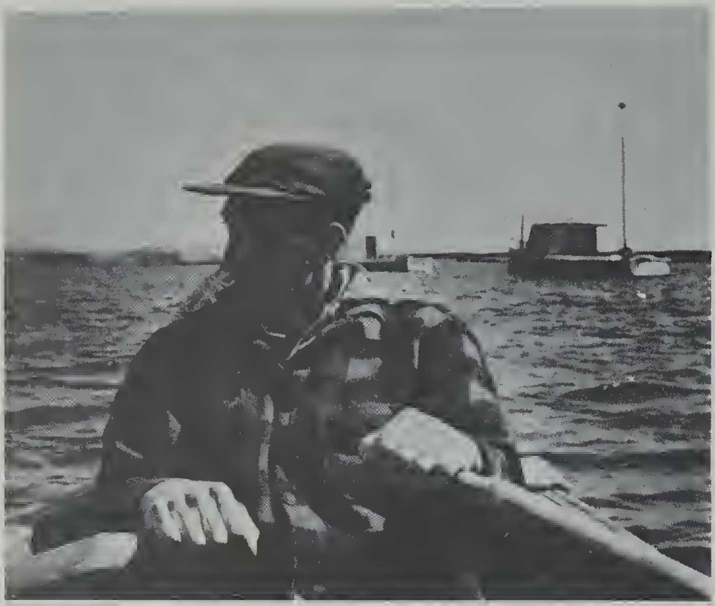
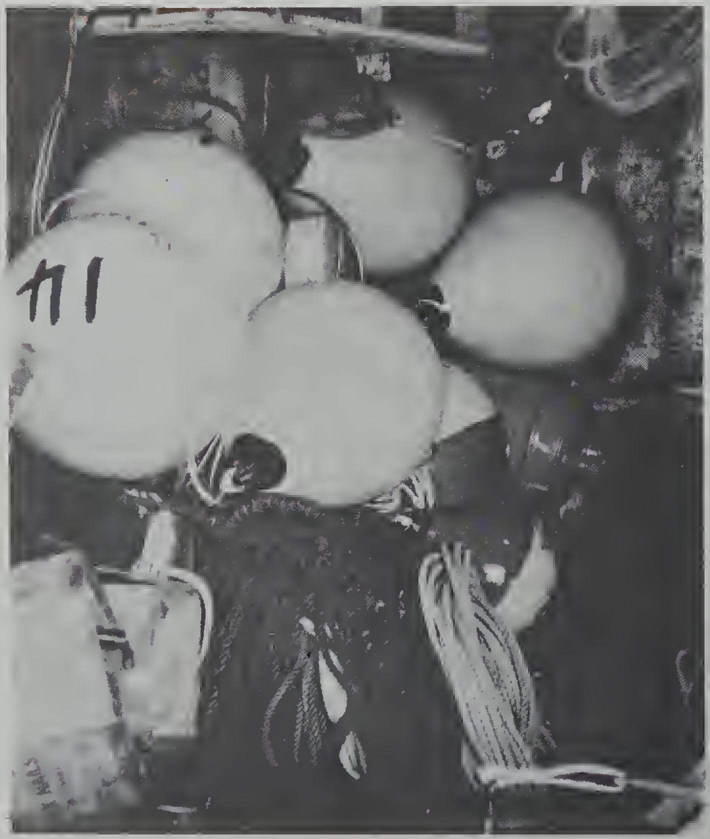


FIGURE 57.

FIGURE 58.



Mr. Greek: They could put a subsidy on lobster. Set a price. Put a subsidy on herring. Say to the company "you are making a lot of money, you could help the fisherman out."

Question: Do you think the government might not help you because it doesn't want to keep more people in inshore fishing if it is not profitable today?

Mr. Greek: If they don't want more people in inshore fishing, they should concentrate on providing alternatives.

Question: Many people of your village are working in town or moving out. Do you think you might have to?

Mr. Greek: We just might.

QUESTIONS:

(1) What do the fishermen claim is hurting their lobster fishing?

(2) Who do the fishermen think should help them?

(3) Do you know what a subsidy is? If not, you should look it up, or find out by studying what you can of the way the price of our Canadian wheat is set.

(4) Do you think a subsidy would help the inshore fishing industry? Discuss. Should we subsidize every industry that might have difficulties? Discuss.

Mr. Greek and Mr. Cockrum show us some of their equipment in the following pictures.

(1) Looking at figure 57, how do the fishermen get to their fishing vessels?

(2) Describe some of the things you see in figure 58. How do you think each

fisherman finds his own lobster traps, which are set on the bottom of the ocean? What piece of equipment here might help him?

(3) Figures 59 and 60 show parts of Mr. Cockrum's boat. What would be the function of each?

(4) Make a list of the equipment needed to be an inshore fisherman. Don't forget to include such items as dwellings and clothing.

(5) What are the main problems of the inshore fishing industry?

(6) Write a paragraph on what you think will happen to the inshore fishing industry.

We asked Mr. Pyke of the National Sea Products about inshore fishing.

Question: Mr. Greek claims that fish prices haven't changed in fifteen years.

Mr. Pyke: Mr. Greek is speaking from the point of view of an inshore fisherman, and the fish he is talking about are chiefly herring and mackerel.

FIGURE 59.

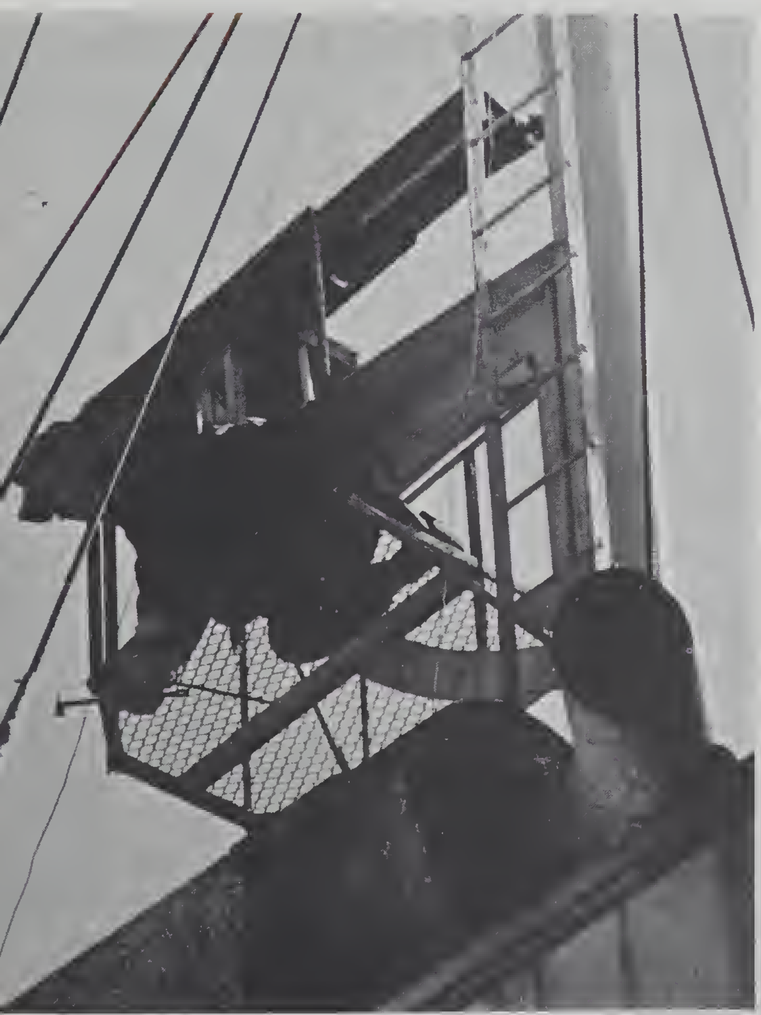
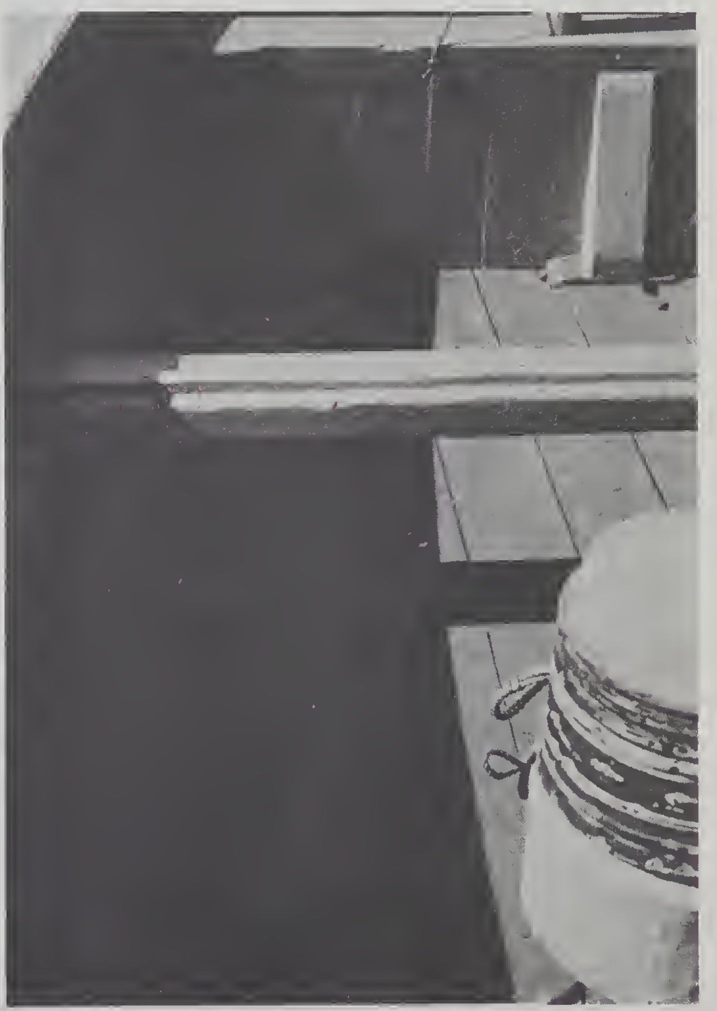


FIGURE 60.



I would think that his statement that these have not increased much in fifteen years is correct. This does not apply to offshore varieties: cod, haddock, perch, sole, halibut, and others. The prices of these are higher today.

In this particular area we do not have a good inshore fishery. The inshore fishery in Nova Scotia is more in the Yarmouth, Shelbourne, Lockeport and Cape Breton areas. This part of the southwestern shore of Nova Scotia does not have a good inshore fishery, except for the seasonal fishery of herring and mackerel.

Question: And lobster?

Mr. Pyke: The lobster fishery is not very good in this area either. If the fishermen had to depend on lobster alone, they'd starve.

The inshore fishermen who work in this area are not typical of the inshore fishermen in Nova Scotia. They are more dependent here on the seasonal fishery, whereas in the other areas I mentioned, they get more cod and haddock. In these other places, they make a better living.

QUESTIONS:

(1) Locate, on map of Nova Scotia in your atlas the areas Mr. Pyke described as the better inshore fishery.

(2) How does the **inshore** fishery around Lunenburg differ from these areas of Nova Scotia? How is it the same?

(3) What reasons are given by Mr. Pyke for the inshore fishery around Lunenburg being poorer than these other areas?

(4) Write a paragraph on how Mr. Greek is representative or is not representative of inshore fishermen in Nova Scotia.

(5) What other ways, beside a subsidy, could be used to help Mr. Greek earn a better living?

Summary:

Even though an area is not really representative of a larger area, we can still learn from a study of it. The inshore fishery around Lunenburg can give us some idea of the industry as it is carried out in the Atlantic Provinces. The equipment used is much the same. Boats like Mr. Cockrum's are found all along Maritime shores. The lobster traps, nets and so on are typical of inshore fishing.

Also, many of the problems faced by Mr. Greek and Mr. Cockrum are typical of the whole industry. It is hard to make money when the price of equipment and the standard of living rises, while the price you receive for fish remains the same. Mr. Greek likened his situation to that of a farmer. You should try to find out how these two are similar. This could be an important class project.

We have learned that while there are similarities between the inshore fishery around Lunenburg and the rest of the Atlantic Provinces, there are many differences. Mr. Pyke mentioned some of these. You should review these once more.

SOMETHING TO DO

The class could divide up into groups and play-act being Mr. Greek's family. What discussions would they possibly have with the children about their future?

UNIT VI: A SEA VOYAGE

We are docked at the pier of the National Sea Products Plant in Lunenburg Harbour. Our engines have been warming up for ten or fifteen minutes. They send a rumble through the ship.

Figure 61 shows the skipper in the wheelhouse. From here he directs his ship. What evidence is there that this is a modern vessel?

The skipper gives the order to "move off." The dock workers cast off the large ropes that have held the ship at anchor. Three blasts of the horn signal our departure. The way out of the harbour is marked by buoys. There are laws for guiding sea vehicles just as for guiding land traffic. Straying from a marked path could mean colliding with another vessel or running aground. The skipper is familiar with the paths and constantly checks his charts.

Fog hangs over the harbour, and except for the rippling white wake behind us, the water is calm. Soon we spot the lighthouse on Battery Point. It sounds a horn and flashes a powerful light. Turn back to the topographic map (figure 24) and locate this lighthouse. Why is it in this location?

The captain keeps a constant watch on the radar screen. This very useful instrument is shown in figure 62. The ship's position is dead centre. The circular screen is marked with straight lines showing direction, and circles showing distance. These markers cover the whole screen.

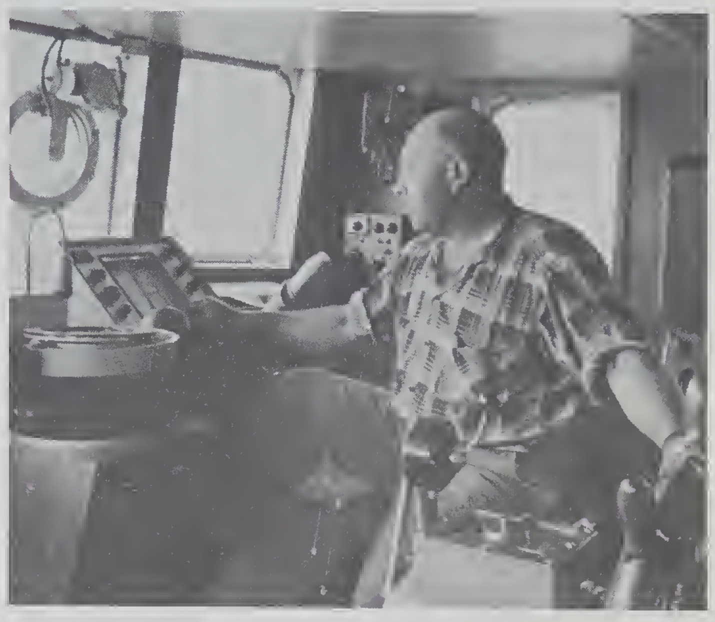
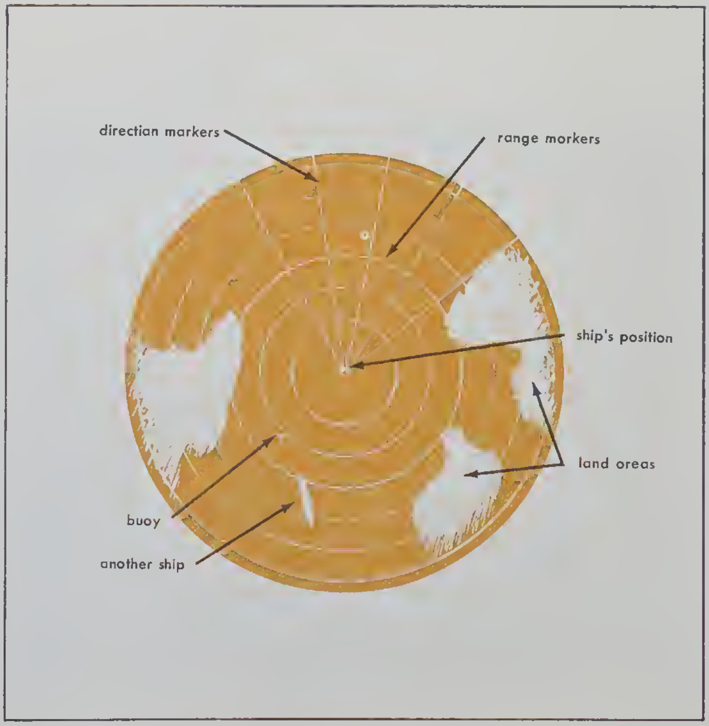


FIGURE 61.

FIGURE 62.



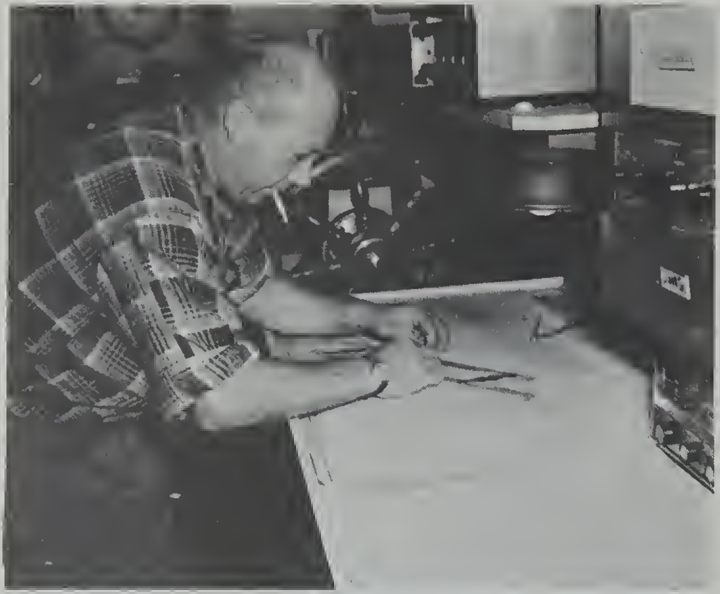
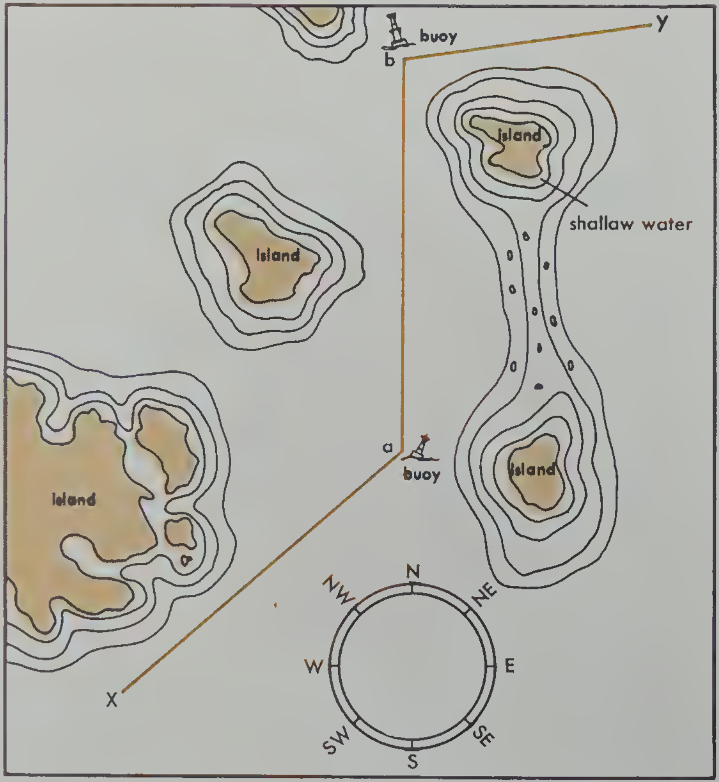


FIGURE 63.

FIGURE 64.



We have only shown a few. By radar the captain can tell the direction and the distance he is from land or another vessel. Weather conditions and rough seas will also show up on a radar screen. What advantages does this instrument give the captain over a schooner captain?

As we move from the habour we enter rougher seas and heavier fog. The radar screen shows another vessel a few miles off. The skipper sounds the horn and a few seconds later the other ship sounds its horn. A few minutes later the ship appears. It is a large freighter.

Plotting the Course

Figure 63 shows the skipper plotting his course on a chart. A chart appears much as we have shown in figure 64. The land is marked just as on a topographic map. On these charts, though, contour lines show depths below sea level, not heights above sea level. The captain is interested in knowing the nature of the ocean floor. Think of some reasons why.

In figure 64 point to some shallow water and to some deep water. Find the land area. We have removed most of the contour lines to show more clearly how the skipper plots his course.

Say the skipper wants to sail from X to Y. What prevents him from sailing straight through? What does he do instead? Each part of the journey could be in a different direction.

Keeping a close check on the bottom

Figure 65 shows another very important instrument. Find this instrument in figure 61. It works much like radar, except that it shows the ocean floor instead of the surface of the water. The depths are marked on the sheet of paper behind the glass. The solid line to the left is the level of the sea. The jagged line in the middle shows the ocean floor. Because it records depths, it is called a *depth sounder*. It is more accurate than the charts, and it is in constant operation as we are sailing.

We are now about fifty or sixty miles out of Lunenburg. The sea is very rough. The bow heaves into the air and slams down into the waves. Thick white spray is thrown to each side and up onto the deck. The men work along in this as we see in figure 67. They are used to it. How are they dressed?

On the way out, the men are busy at several activities. Look at figures 66, 67

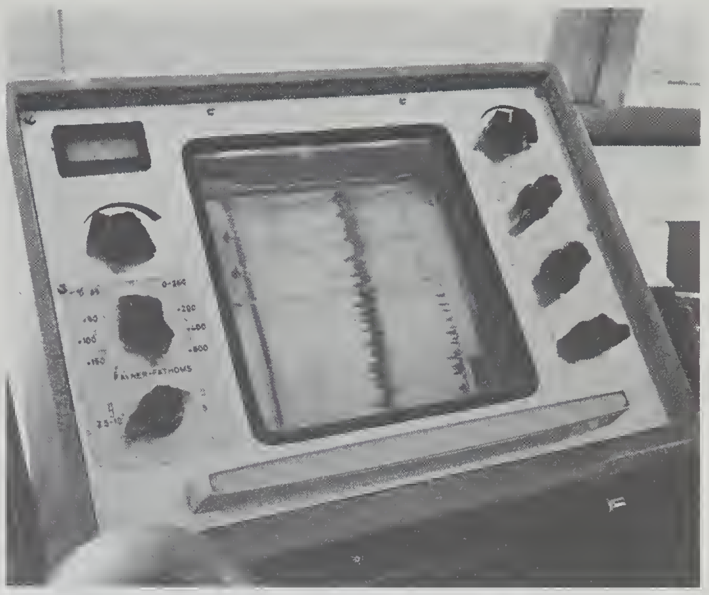


FIGURE 65.

FIGURE 66.

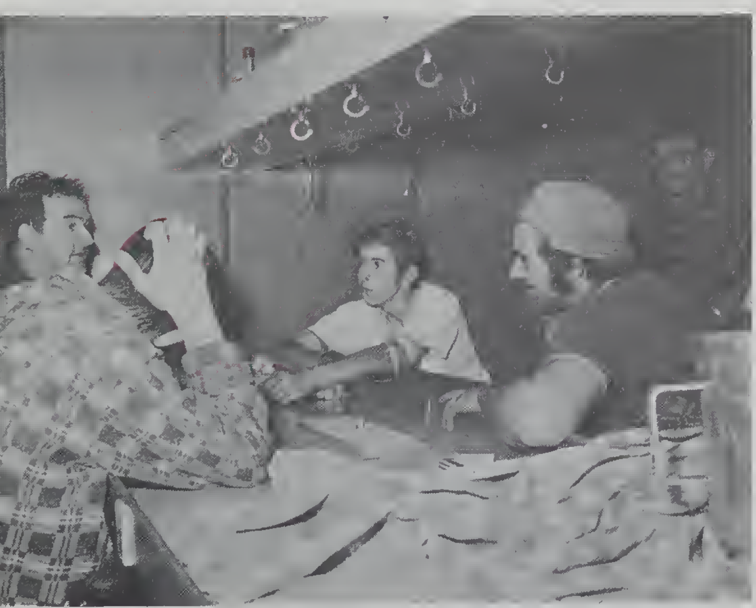
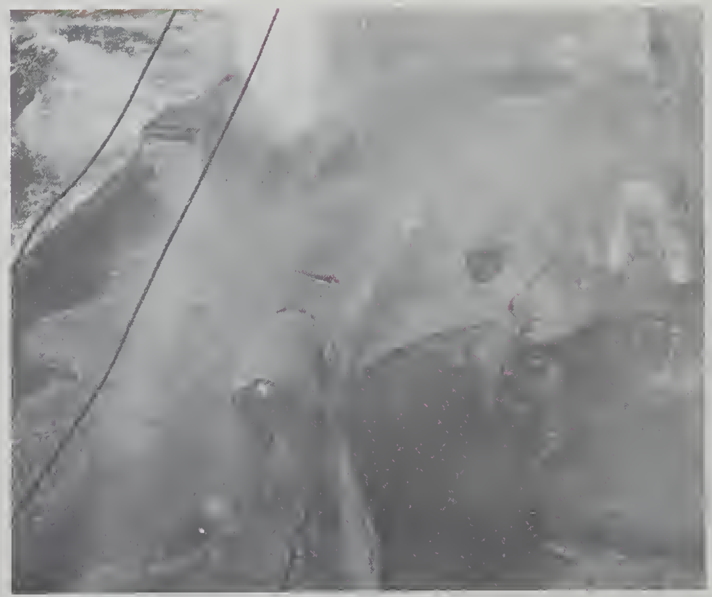


FIGURE 67.



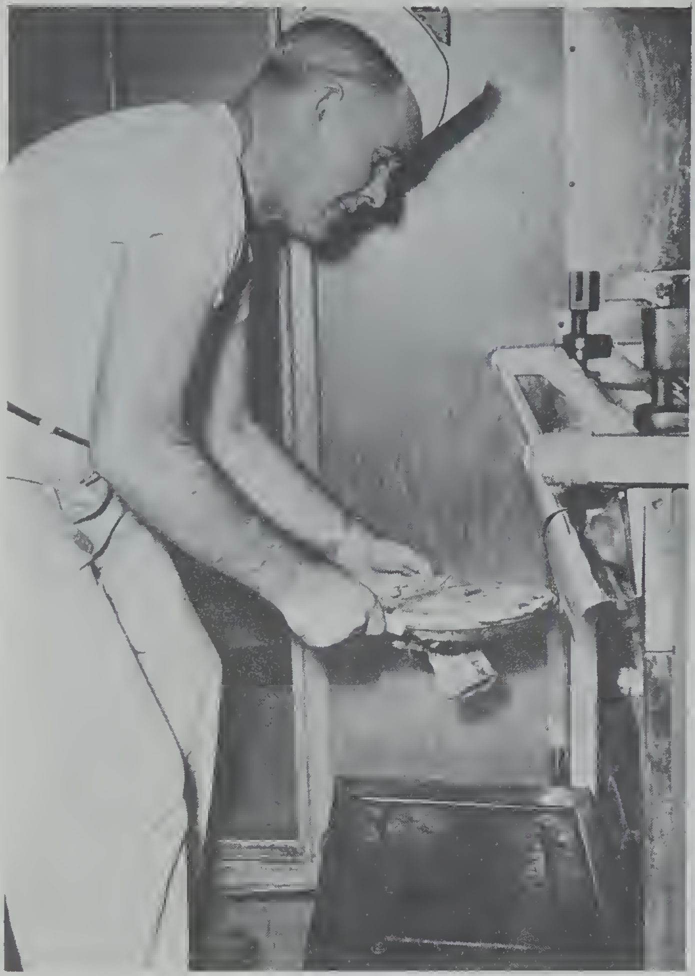
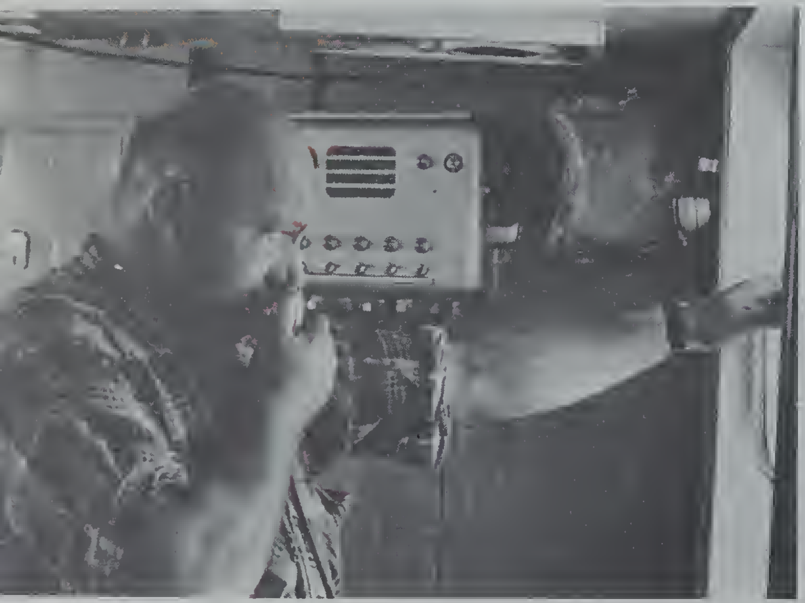


FIGURE 68.

FIGURE 69.



and 68. Describe what the men are doing. What's cooking?

The skipper is always busy. He checks the radar, depth sounder, charts and the radio. He can talk by radio to other ships or to shore. Also, he can listen to each. We see the skipper talking to another skipper in figure 69. Our skipper learns that the fishing is pretty good in such and such an area. What else might the skipper inquire about? What reports would be very important to listen for while at sea?

Every morning at 10 o'clock the skipper radios to shore. He gives his position and receives instructions.

QUESTIONS:

(1) List the instruments we have mentioned and explain how each helps the captain.

(2) Make up a chart with islands, and shallow water. Put in a compass with the main directions and any scale. Plot a course from "land" to "fish." Give directions and distances for each step of your voyage.

(3) For question 2, explain how radar, the depth sounder and the radio would help you.

(4) Compare this ship to the schooners we studied in Unit 4. What are the advantages of the newer ship?

(5) Make a generalization about modern fishing vessels as compared to old sailing vessels by using the word "instruments."

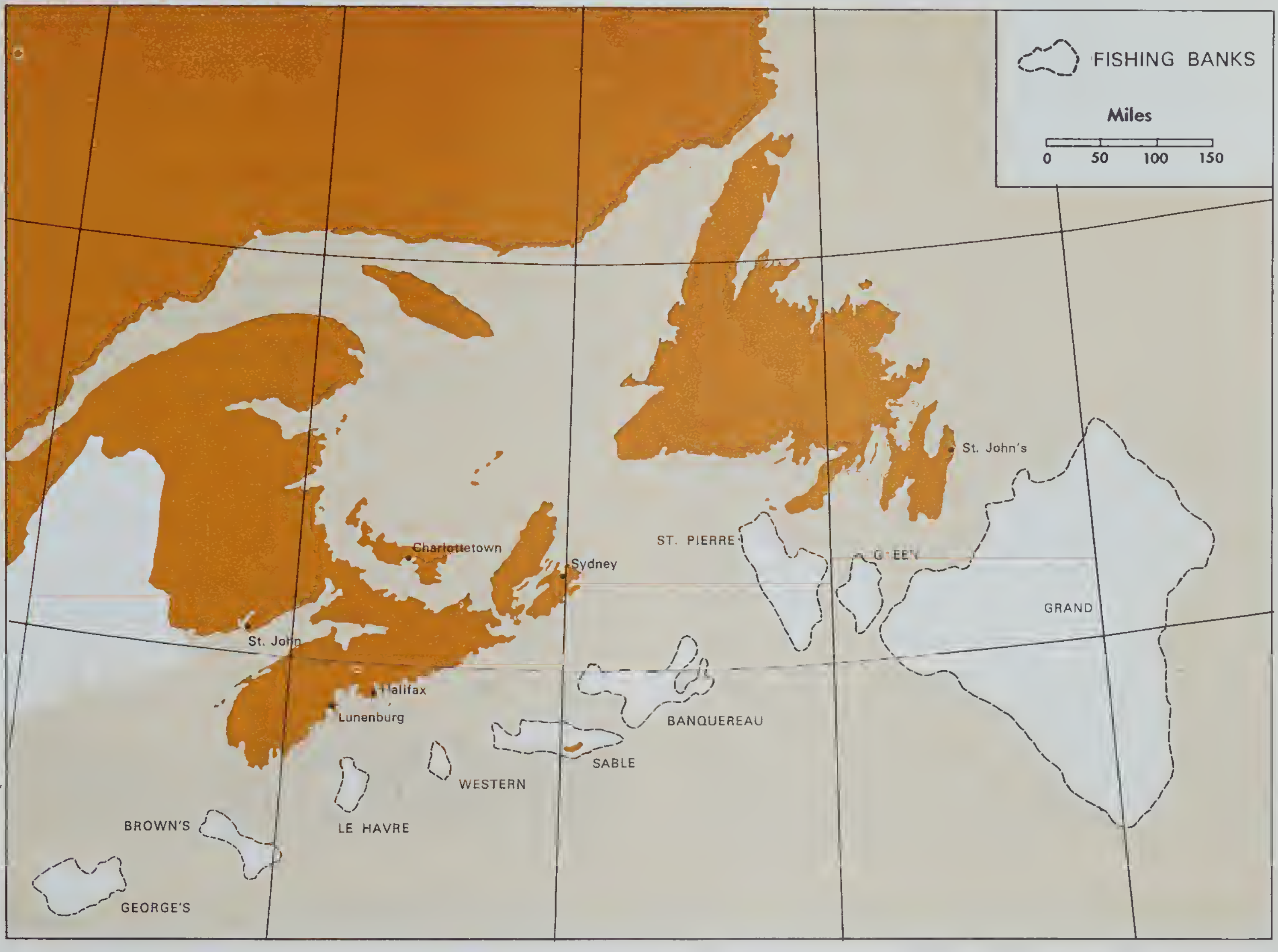


FIGURE 70.

(6) Would you expect one man to own the ship, or a company to own it? Why?

To the Fishing Grounds

The general area is decided upon before the trip. Different areas are better for different fish. Unit 8 tells how the great groups of fish, called *schools*, gather in the areas shown in figure 70. These areas are called *banks*. We will learn more about banks also in Unit 8.

QUESTIONS:

(1) On what banks did Captain Knickle fish? On what bank did he get caught in the hurricane?

(2) What was the main fish caught by the schooners on the Grand Banks?

(3) Fishermen come to the banks from all over the world. At what city

would these ships dock for supplies in (a) Newfoundland and (b) Nova Scotia? What, then, is one function of these two ports? You should use your atlas for this question.

(4) We have travelled about 300 miles from Lunenburg in an easterly direction. Name a few of the possible banks we may be visiting.

If a company has too much of one kind of fish it will ask the captains to fish for other kinds. On this trip we are headed for the Sable Bank for cod.

Once we have reached the bank, the skipper sails for the good fishing spots. He knows some of these areas from experience. Over the years he has kept records of his best catches. It is like a weekend fisherman having a favourite stream or a spot on a lake where he usually has good luck. Another way the skipper might find good fishing spots is by listening to other captains over his radio. They might direct him to the fish. Once he reaches these spots, he watches his depth sounder.

Figure 71 shows a photograph and a drawing of the paper sheet from a depth sounder. What represents the surface of the ocean and the ocean floor? The schools of fish show up as blotches on the sheet. Not even this method is sure. Fishing is always a gamble. Fish may

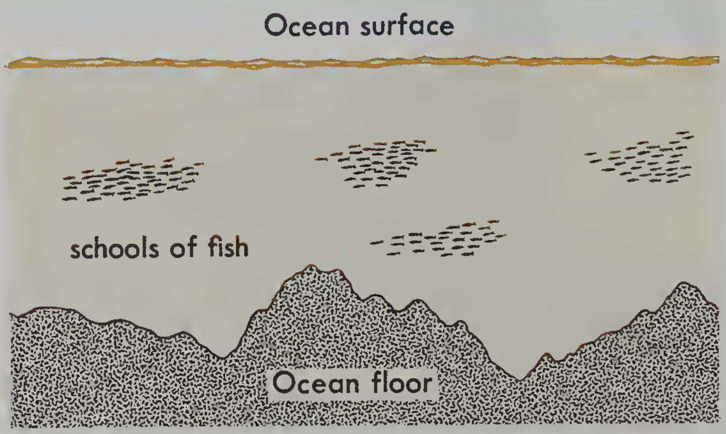
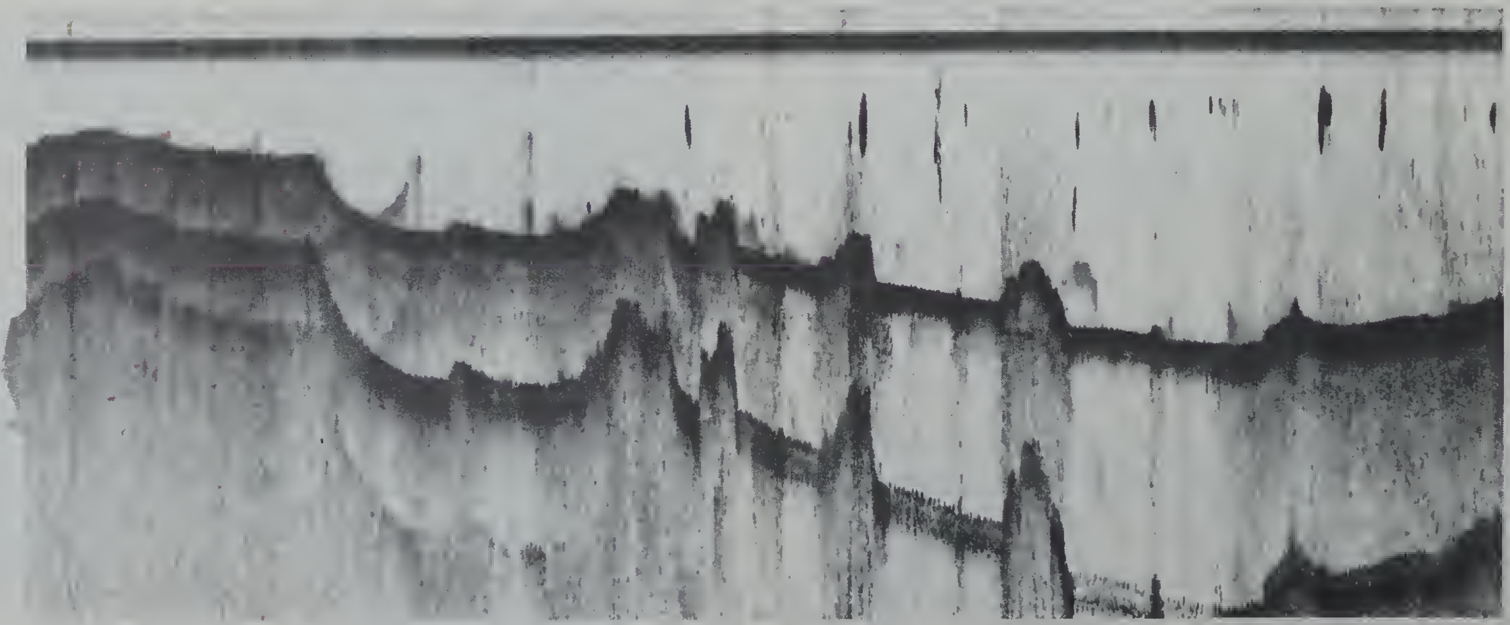


FIGURE 71.



live in one spot at one time for years, then disappear. The depth sounder might record whales, or any number of things, even cold water masses. Any of these might look like fish.

The skipper has been directed to an area by some other skippers and has just discovered some blotches on his depth sounder. He orders the net to be let out. Figure 72 shows, generally, what the net looks like. It simply moves along, dragged by the ship, and scoops the fish out of the water.

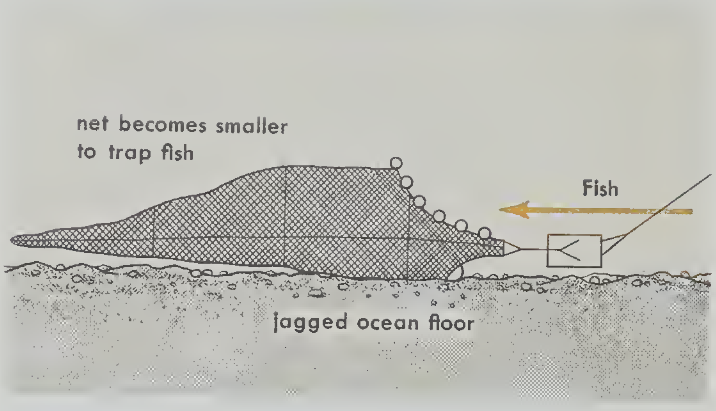


FIGURE 72.

QUESTIONS:

(1) Along what part of the ocean is the net dragged? What would be one problem with this?

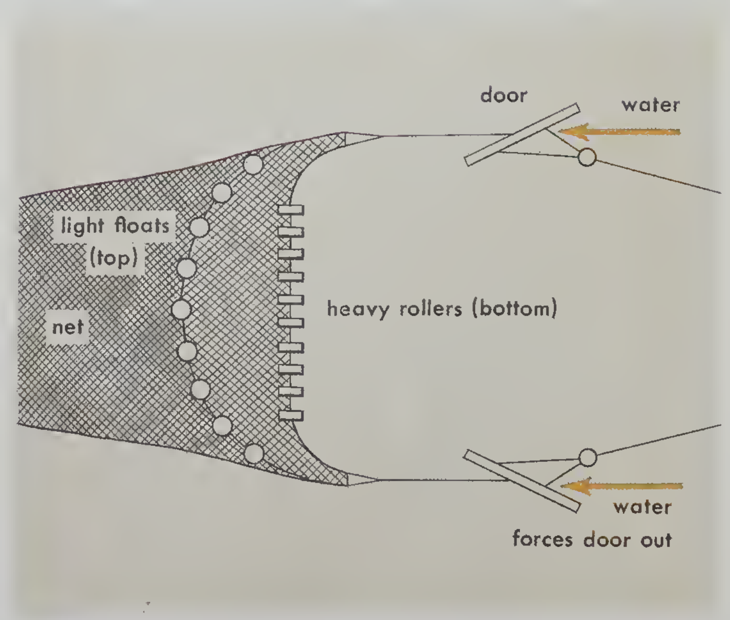
(2) How is the net designed to trap the fish?

(3) Suggest how the mouth of the net might be kept open?

Dragging the Ocean Floor

Since the net is dragged along the ocean floor, these ships are called *draggers*. Dragging was first tried in Ireland in the 1890's. Ever since then fishermen have had the problem of keeping the mouth of the net open. Study figure 73.

FIGURE 73.



QUESTIONS:

(1) What keeps the top of the net up? What keeps the bottom of the net down?

(2) Explain from the diagram how the doors keep the nets open from side to side.

While the net is out the captain keeps a close watch from the wheelhouse (figure 74). (Who is the captain's companion?) The net is hundreds of feet long and about 75 feet wide at the mouth. How long is your classroom? If it gets caught on the bottom it could mean expensive repairs or even the loss of the whole net. There are anxious moments while the net is out.

The skipper has made several runs past where he thinks the fish are and then orders the net up. First to come up are the heavy doors, which are hoisted up out of the way. Then the powerful winches pull in the floats and rollers. Then the net appears (figure 75), and is pulled up on board (figure 76). The men tie ropes

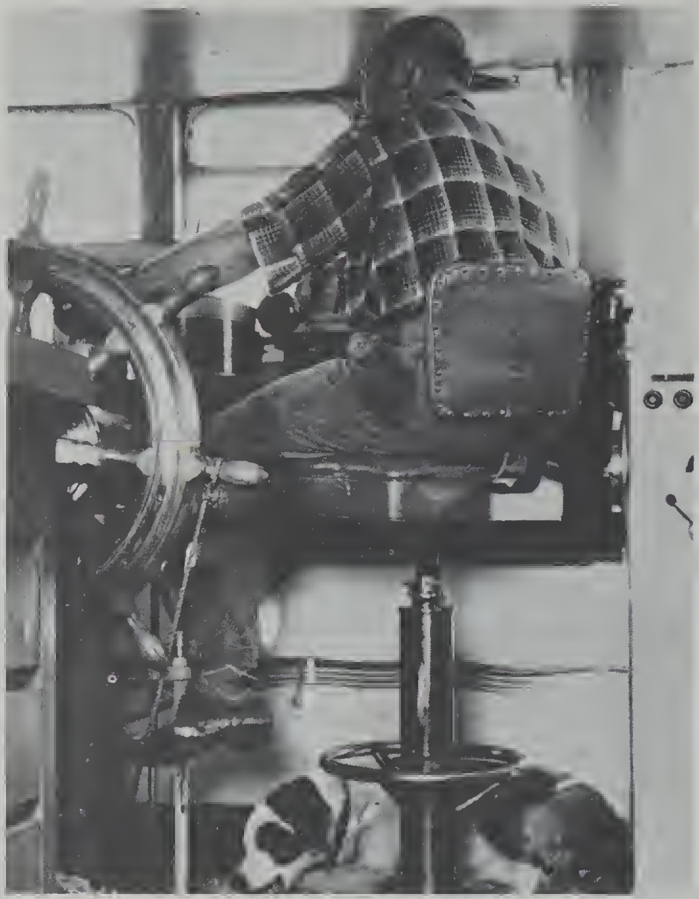


FIGURE 74.

FIGURE 75.

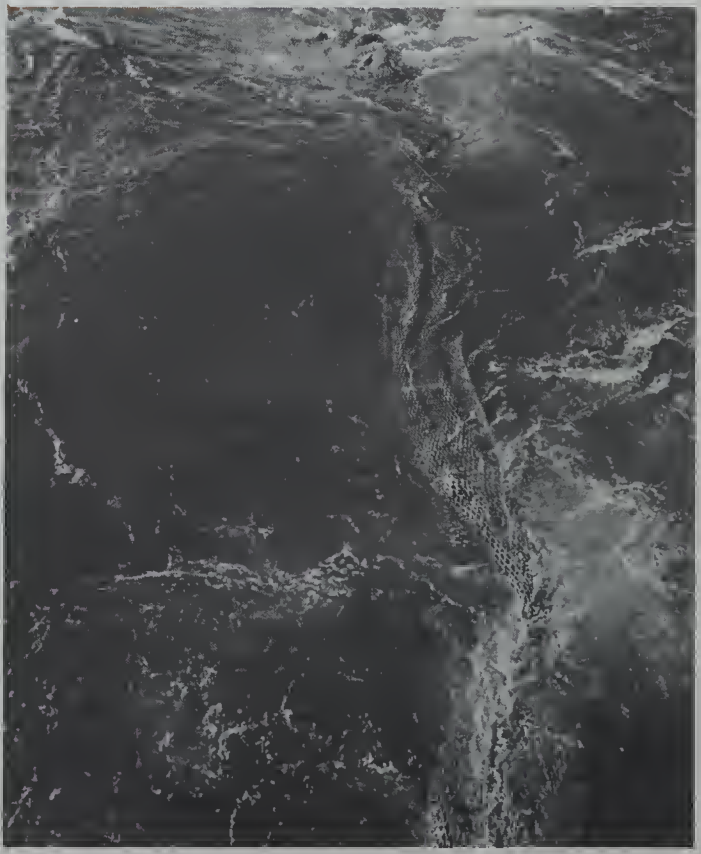
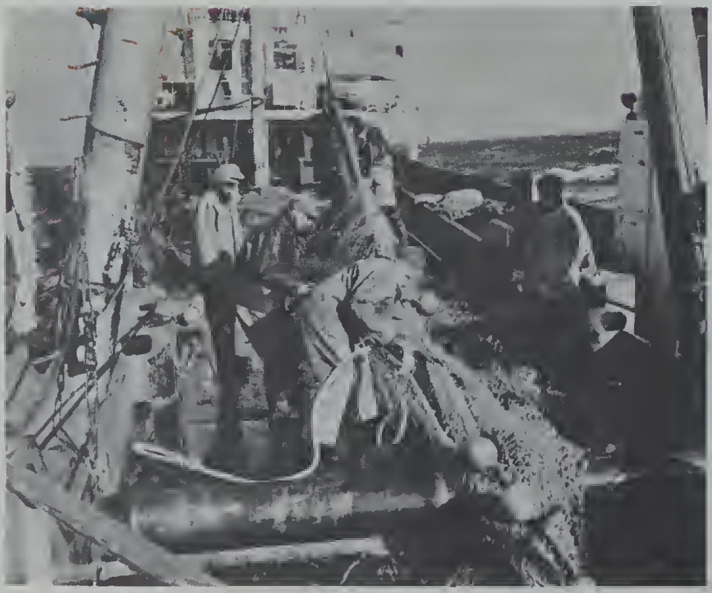


FIGURE 76.



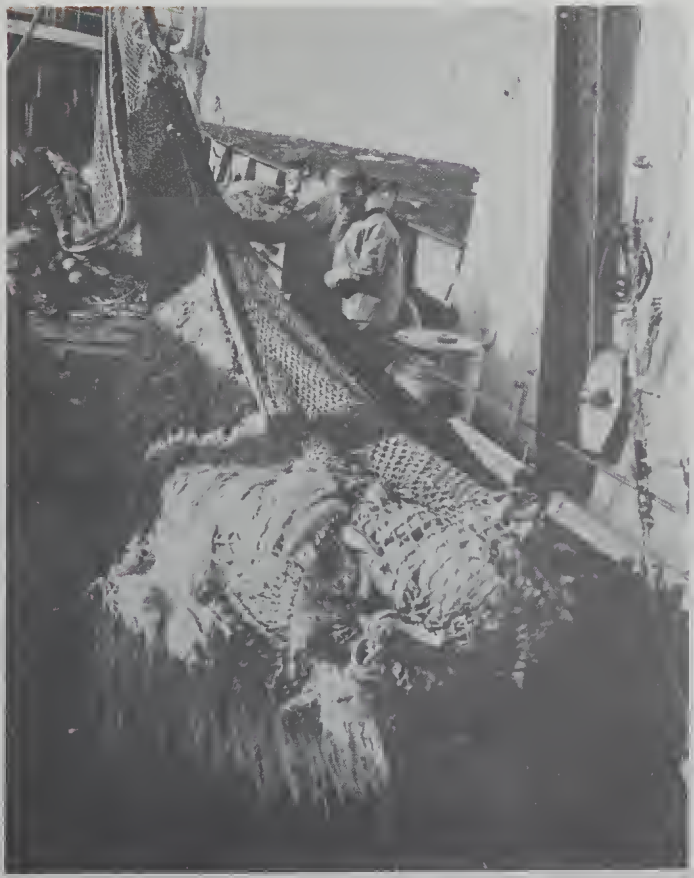
around the net to keep it neat and to keep the fish in one end (figure 76). Last to come on board is the cod end, shown in figure 77. What is hanging on the net?

QUESTIONS:

(1) What machine aids in pulling the net up? What do machines save? Make a generalization about modern fishing vessels using the word "mechanization."

(2) Look back over the pictures and describe some manual labour that still must be done. You should study the rest of the pictures in this chapter to find examples of both mechanical and manual work.

FIGURE 77.



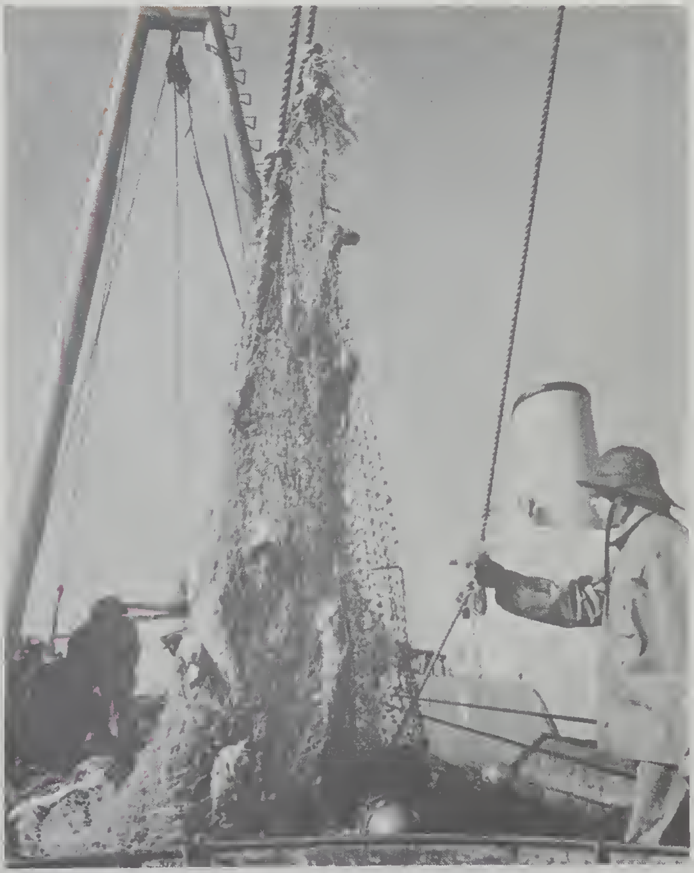
(3) Suggest why fewer men might be needed in the fishing industry now than in the past.

Preparing and Preserving the Catch

Fish spoils very quickly. It spoils much quicker than beef or pork. The fish must be landed at port in almost as good condition as they are caught. So the fisherman fights a war against spoilage.

The net has been brought aboard and is hoisted up as shown in figure 78. The fish are then dumped into an area below the decks. Look at figure 79.

FIGURE 78



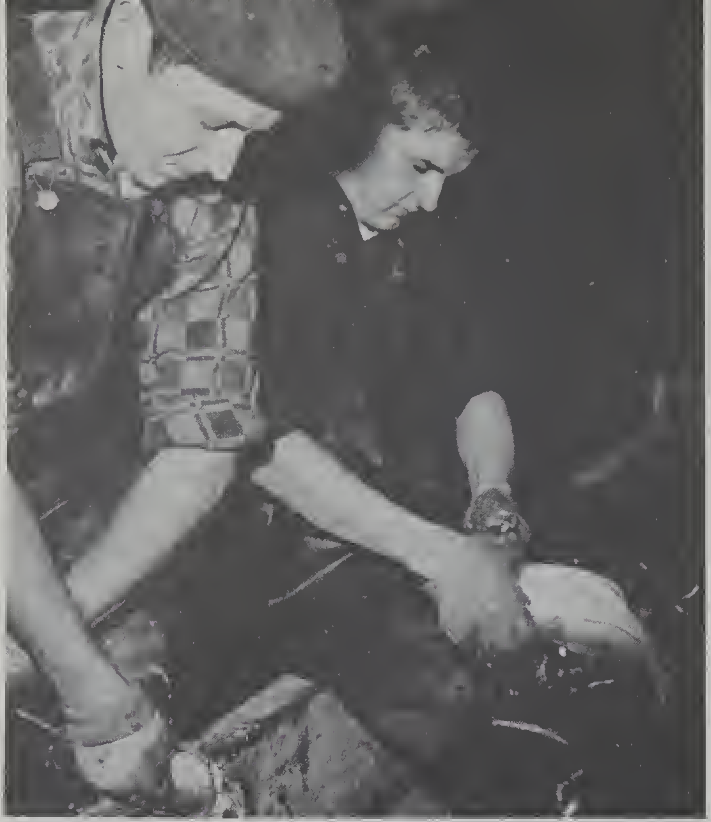
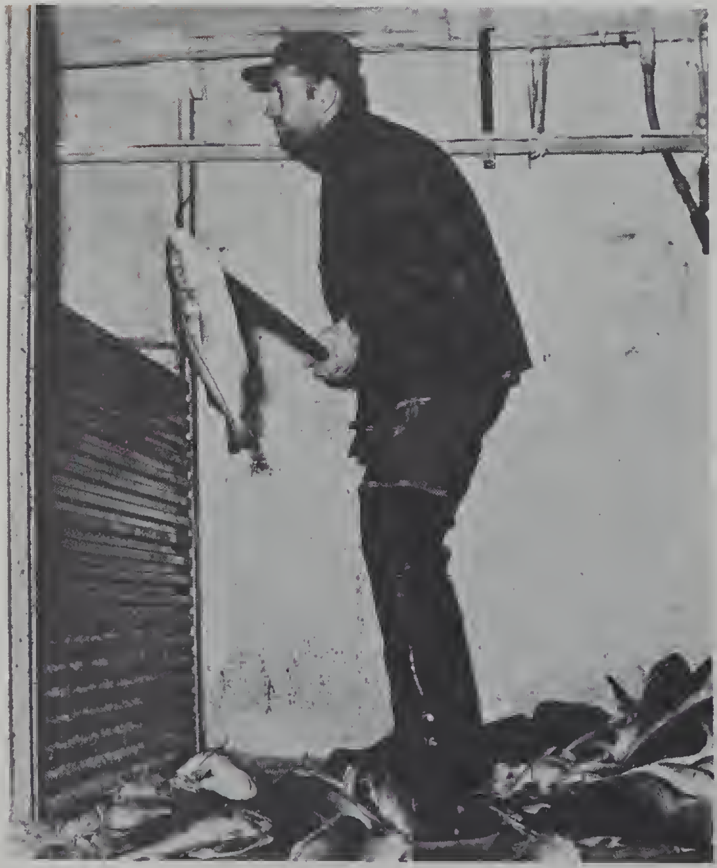


FIGURE 79.

What are these men doing? How will this help in storing the fish? Next, the fish are washed and carried by the conveyor to the man in figure 80. This man stacks the fish in the compartments shown in figure 81. In what are the fish packed? Why?

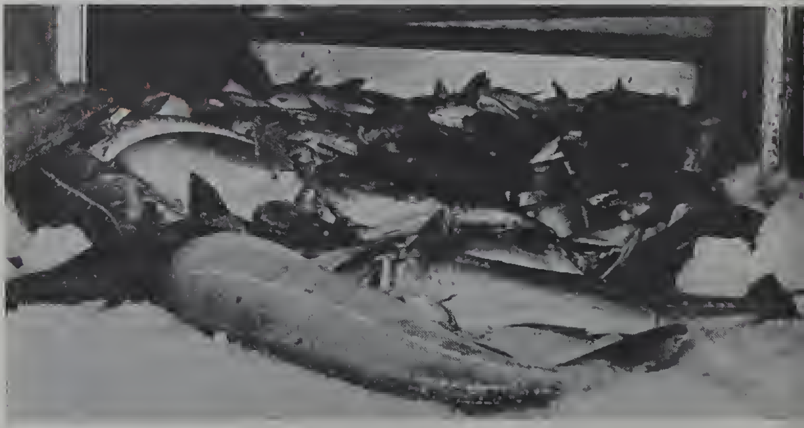
FIGURE 80.



Fish begins to spoil immediately after it is caught. To keep the fish fresh the crew must gut, clean and carefully pack the fish in ice. Gutting the fish not only aids in preserving, but it enables the ship to carry much more fish. The ice lowers the temperature of the fish and prevents spoiling. Even in ice, though, fish like cod will spoil within 16 days. The fish often spend more time in the hold of the ship than they do in getting from the fish plant to your dinner table. So the handling of the fish at sea is very important.

The icer is particularly important. He cannot stack fish on top of each other or they will bruise. He must mix the ice thoroughly over the fish or they will spoil.

FIGURE 81.



QUESTIONS:

(1) What three steps are taken to preserve the fish?

(2) The two main problems of fishing are finding the fish and then preserving the fish. Explain each problem and explain how this ship deals with each.

(3) What methods were used on the schooners to deal with these two problems? What are the advantages of the more modern methods?

Heading Home

After six days at sea we are headed home to Lunenburg. The catch has been good, so the men can be satisfied that the trip was worth while. They receive a percentage of the money received for the fish. The captain receives about three times as much as the crew. The cook and engineer are paid a wage plus a share. The company which owns and maintains the ship receives about 40 percent of the value of the catch. If the catch has been poor everybody receives less. Fishing is a gamble for the crew as well as the skipper.

After the trip the crew have 48 hours off before their next 8 day trip.

QUESTIONS:

(1) What landmark will we spot first on entering Lunenburg Harbour?

(2) We have seen ways how fishing is a gamble in this chapter. Describe them.

(3) Think back to Unit 4 and the dangers of schooner fishing. How is fishing less dangerous today than in the days of the schooners? How is fishing still dangerous?

(4) For how long are the men out? Compare your father's job to a fisherman's job in terms of time spent away from the family. Think of a few other jobs in which so much time is spent away from home.

(5) How are the crew and the skipper paid? How does this compare to the way some other workers are paid? Why does the company receive the largest share?

Summary:

The fisherman's life has improved in the years since the schooners. He no longer must take the dangerous trip off the deck in the dories. He is protected from storms by faster ships, radar, and better weather reports. The voyages are shorter and he sees his family more often. The ship is also equipped with machines that save work and time.

The function of the fishing vessel is to find the fish and bring them home as fresh as possible. In the next chapter we will find out what happens to the fish once they are landed.

FOR DISCUSSION:

Describe what it might be like to be in a family in which the father is a fisherman. Tell how it would differ now from what it might have been like in the days of the schooners.

FIGURE 82 (top, left).

FIGURE 83 (top, right).

FIGURE 84 (left).

FIGURE 85 (bottom, left).

FIGURE 86 (bottom, right).

UNIT VII: THE NATIONAL SEA PRODUCTS PLANT

In some ways, a plant is like a town or a city. Many different people do many different jobs. You have seen how the people of a city depend upon each other. In a plant, people depend even more on each other.

Look at figures 82, 83, 84, 85 and 86. Write down the number of each picture, and beside it write down the work that is being done or has already been done. How are these different kinds of work all concerned with one product? What product would that be? Explain what would happen to the fish in each of these pictures. How would these functions depend on one another?

Now look at figure 87. Count the women. How is the work being done here? What is one thing that a plant needs to function? What does a plant provide for its workers in return for their labour?

Now study figure 88 and answer the following questions.

(1) What is another thing a plant needs to function?

(2) What other machines can you name? Perhaps you know some farming machines. What does a machine save?

(3) What are the small objects moving along this machine? What is this machine doing?

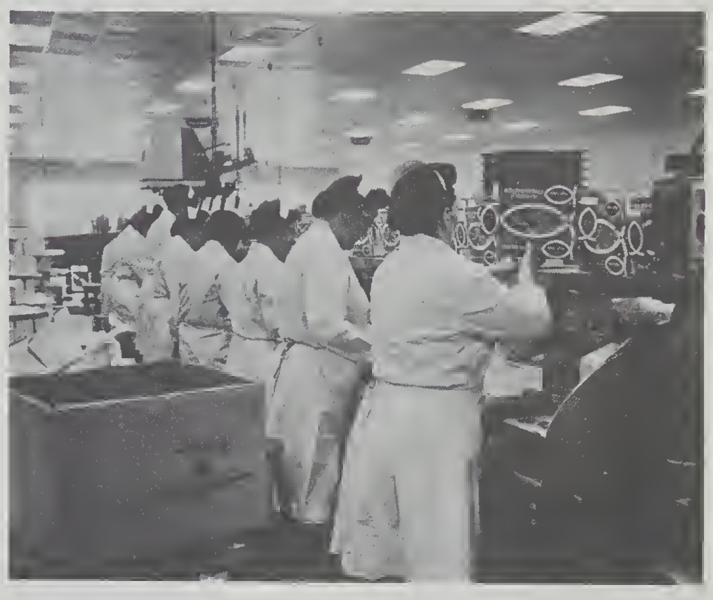
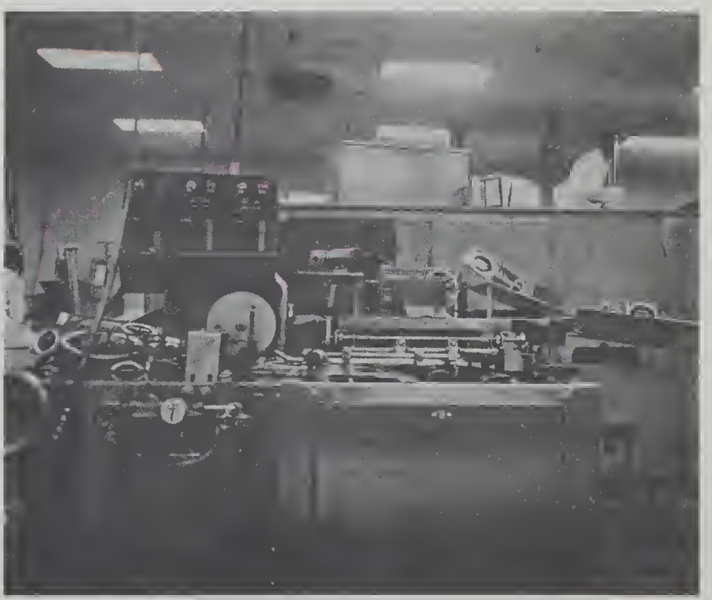


FIGURE 87.

FIGURE 88.



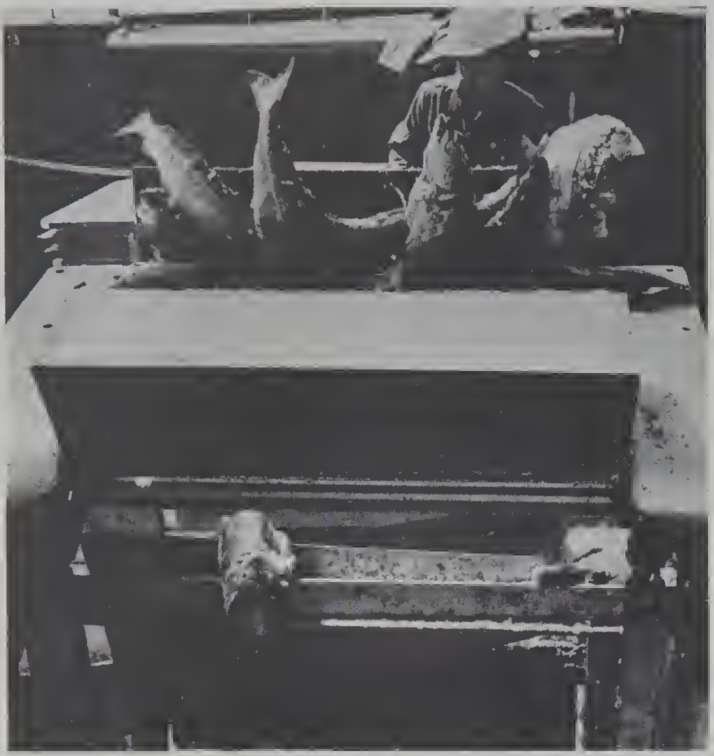
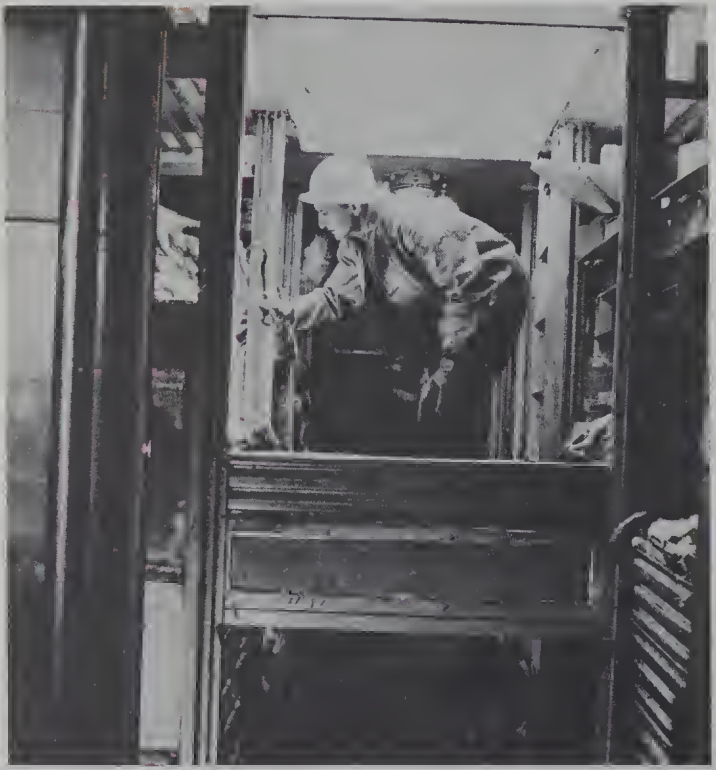


FIGURE 89.

FIGURE 90.



In a smelter, we start with ore and finish with metal. In a mill we start with wheat and finish with flour. We start with something we can't use and finish with something we can use. In this plant, we finish with various products we can eat. With what do we start? The things that happen to the fish in between is called *processing*. The plant is a "fish processing" plant.

(1) What two words describe the materials with which we start, like ore or wheat?

(2) Make a generalization about plants using the words "raw materials" and "finished products."

We asked Mr. Cy Reid, the plant chemist to show us what happens between the time the fish are landed and the time they are shipped out to the customers.

A Plant Tour

1. *The landing.*

The fish have been caught and gutted at sea and stored in a hold as shown in figure 89. A worker moves the fish into buckets that bring the fish out and onto a belt as shown in figure 90. What tool is this worker using?

2. *Sorting and moving to the "line."*

The belt brings the fish to the men shown in figure 91. Since the fish are brought up in all sizes and kinds, what job do you think these men perform?

The trucks that carry the boxes of fish to the next stage are shown in figure 92.

Why don't the men carry the boxes over? How do the trucks help? Each box contains fish of a certain size of kind. Boxes of each size or each kind are deposited on the same line.

(1) How are the boxes moved from the truck to the line?

(2) What two different transportation facilities serve the plant?

3. *The "line" and the making of fillets.*

Behind the wall in figure 92 are the plant workers. When several work together on one product, we say they are in a *line*.

Figure 93 shows the first man in the line. Describe what he is doing. What tool is he using? What might be cut off the fish? Why?

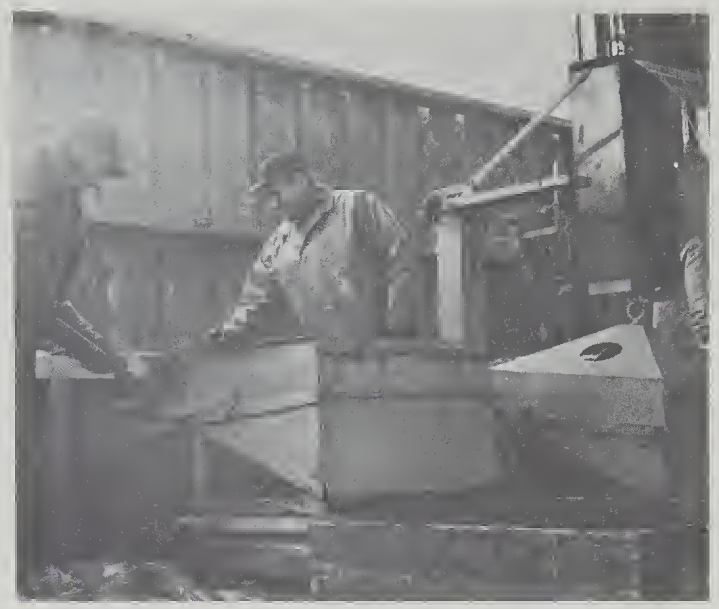


FIGURE 91.

FIGURE 93.

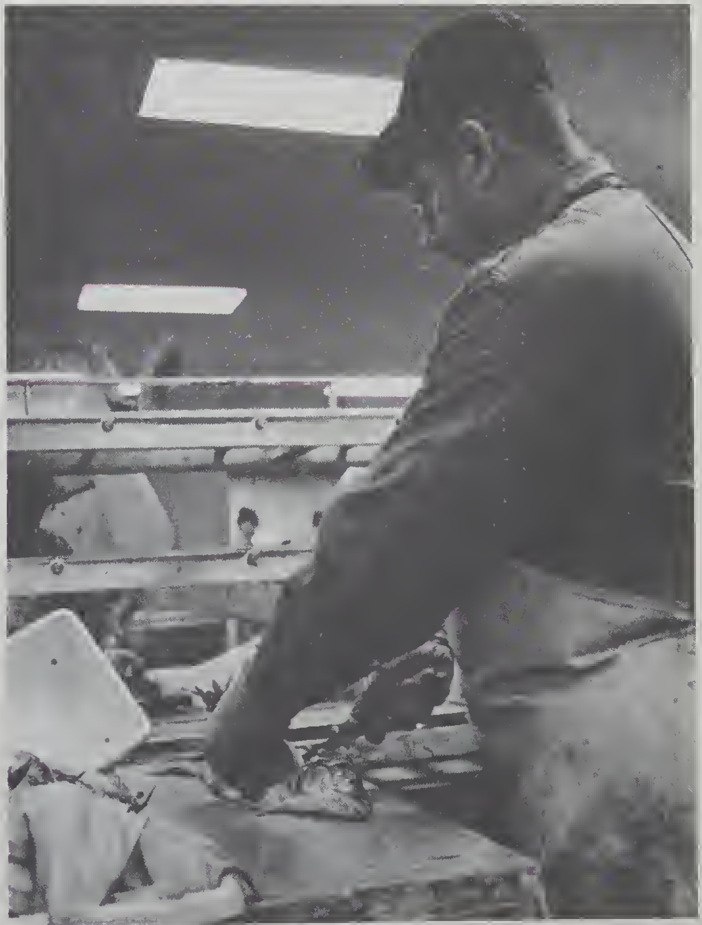
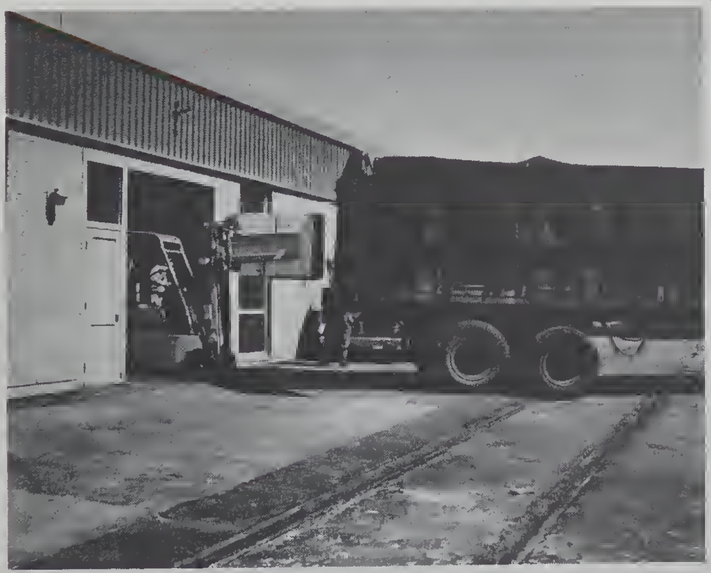


FIGURE 92.



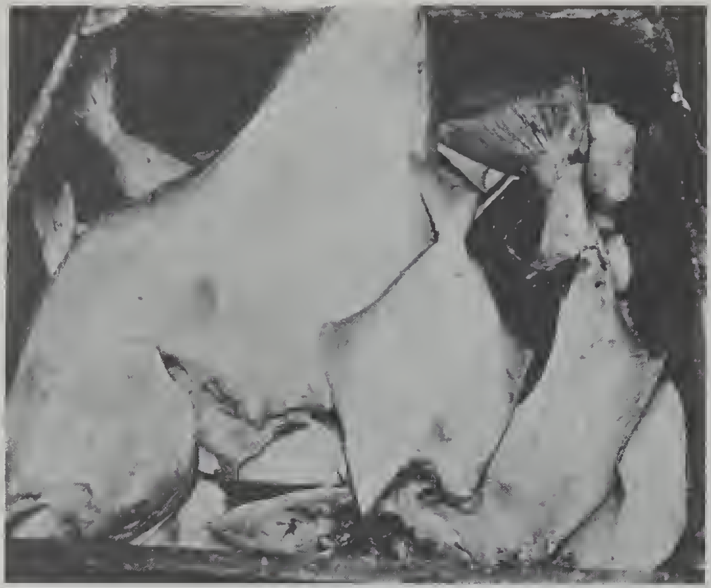
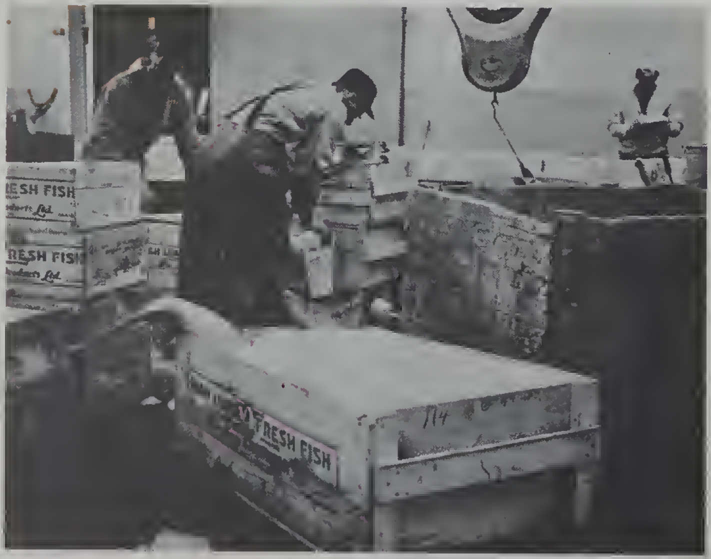


FIGURE 94.

Next, a machine pulls off the skin. So far, we have cut off the head, tail and backbone and have cut each fish into two pieces. These two halves are called *fillets*. The pieces we have left over are called *trimmings*. We will see later what happens to the trimmings; they are certainly not waste!

FIGURE 95.



4. *Fillets sold frozen or "fresh."*

The two fillets can be frozen and sold. Next time you are at a supermarket, look for packages of frozen fillets.

Frozen fish do lose some flavour, and so many people prefer fresh fish. To preserve fresh fish, ice is used. By "fresh fish" we mean fish that have been packed in ice.

Sometimes whole fish are sold fresh. "Whole" fish, like those in figure 94, still have head, tail and skin. When would whole fresh fish have been gutted? What are the men doing in figure 95?

5. *Smoked fish and fishsticks.*

Fillets that are not frozen or sold fresh can go through either of two processes.

a) *Smoked fish:*

It was probably the west coast Indians who discovered that smoking preserves fish.

Certainly, white men discovered that they liked the flavour of smoked fish.

To smoke fish well enough to preserve it would take a very long time. So to save time and still give the flavour of smoked fish, the fish are smoked for a few hours and then frozen. Workers dip fillets in a coloured liquid. This gives the fish a good smoked colour without strong smoke flavour.

Next, the fillets are put into ovens and heated, but not cooked, at under 85°. Smoke from burning sawdust is blown over the racks of fish. These smoked fillets are then frozen.

There are three main smoked fish products: cod fillets, "finnan haddie," and kippers. "Finnan haddie" is smoked haddock that still has the backbone and skin. Kippers are smoked herring, also having the backbone and skin still on.

(1) Is the smoking done to preserve the fish? How are some plant operations done to suit people's taste?

(2) How do "finnan haddie" and kippers differ from other smoked fish, such as cod?

b) *Fishsticks and fishcakes:*

Look at figure 96. Describe the pieces of fish. They are fillets, pressed together and frozen in a large block. Then the block is given to this man. What does he do to the frozen block? What kind of machine is he using?

The sticks are dipped in batter and fried in oil. They are then cooled, packaged, and put into the cold storage room.

5. *Fish Meal.*

Look at figure 97. Mr. Reid is showing us some "fish meal." Describe it.

Turn back to figure 93. What was this man doing? He was leaving parts of the fish called trimmings. The trimmings are carried by water in tubes like those shown in figure 93. What do you think must happen to the trimmings you see in figure 93 to produce the fish meal you see in figure 97.

A steamer cooks the trimmings and makes it easy to mash press and grind.

Fish meal is a very nourishing food used for feeding hogs and chickens.

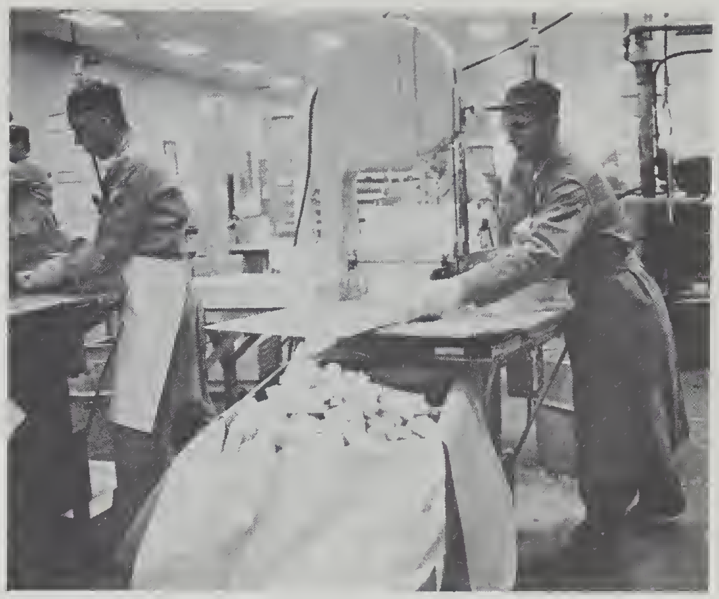
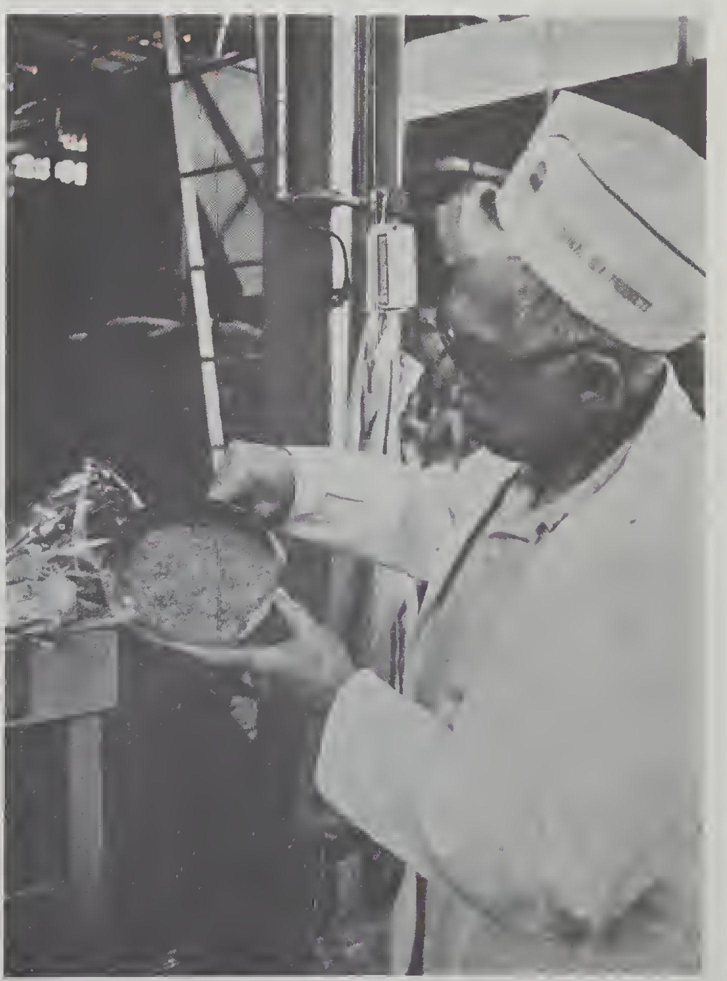


FIGURE 96.

FIGURE 97.



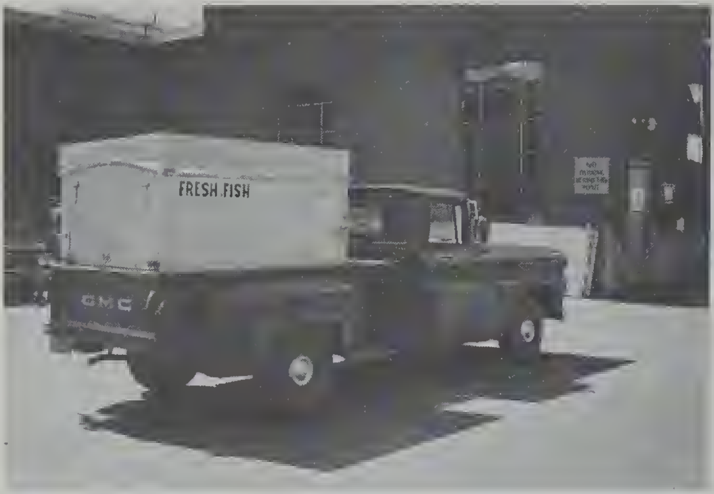


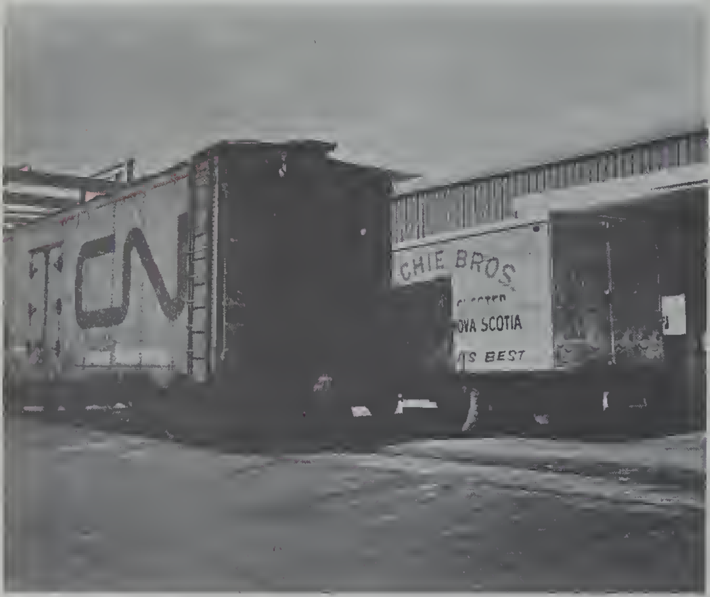
FIGURE 98.

Further processed, it is suitable for people to eat, and it could be a very valuable food in today's world in which many people go hungry every day.

Fish meal is the dry material left, but much oil is also left over. The oil can be used to make margarine or else it is used in industry for tanning leather.

(1) How has National Sea Products made use of all the raw materials?

FIGURE 99.



(2) What do we call a product that comes as a result of the main process? Why are these products important?

6. *Shipping.*

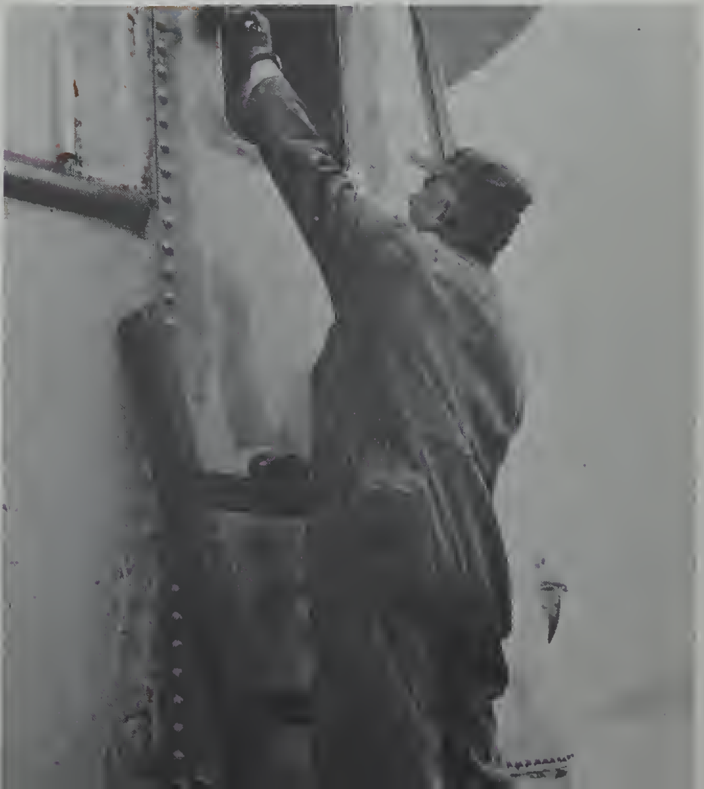
A store near you probably has some frozen fish from this plant in Lunenburg. How might these products get from Lunenburg to you?

Figures 98 and 99 show some methods of transportation. Describe them. Can you think of another, considering Lunenburg's position? Where might the vehicle in figure 98 take the fish as compared with the vehicles in figure 99?

7. A plant the size of this one requires much special work. Look at figure 100. What is this man doing and why is this necessary?

What do we call work that is done to keep the plant and machinery in good condition?

FIGURE 100.



QUESTIONS:

(1) How are the fishermen and the plant workers dependent upon one another?

(2) Go back over the pictures in this chapter and describe how the plant deals with the problems of preservation. What different methods are used?

(3) Can you name another industry that makes valuable use of by-products, the way the processing plant uses its trimmings? Explain how your industry uses its by-products.

(4) Find examples of the following kinds of work:

a) manual, b) mechanical, c) maintainance, d) cleaning.

(5) If you had to state one major difference between the old methods and the new, what would you say?

The Plant's Location

Locate the plant on the map (figure 24) and aerial photo of Lunenburg (figure 31). Describe its location in relation to the town, transportation lines, and incoming ships.

Now look at figure 37. Comparing this to figure 30, point to the north. Which way is it to town? About how far is it to the centre of downtown?

Why do you think the new plant was built here instead of the central dock area where the old W. Smith Company was?

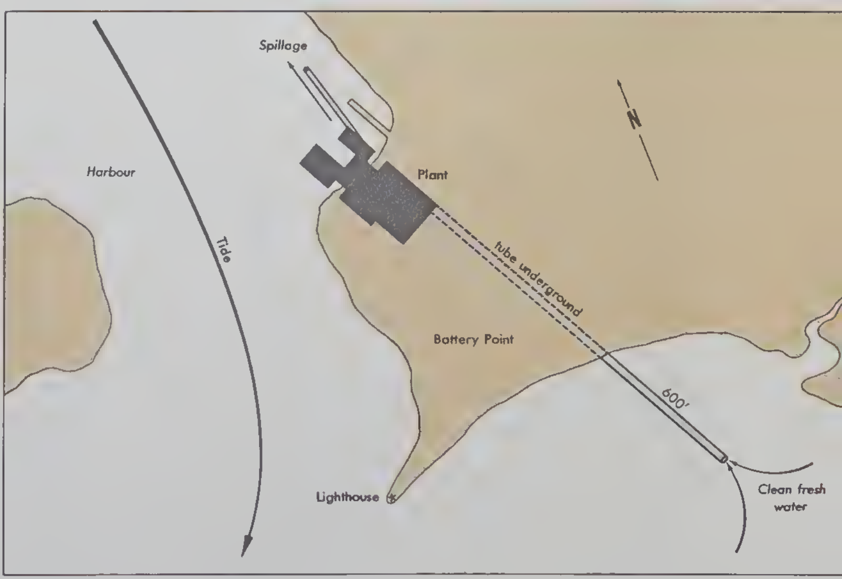
What word describes the two long sections that extend into the water? What is the larger paved area around the plant?

Look at figure 101.

Use your own words to describe another advantage of the location of the plant. Explain why the fresh water and the water containing waste would not mix together.

What is the meaning of the word "commute"? Perhaps you have heard of commuter service or commuter trains that carry people who live outside a community into that community to work. If you do not know what a commuter is, look up the meaning of the word before studying the table on the next page.

FIGURE 101.



	TOTAL	COMMUTERS	PERCENTAGE
Plant Employees (1966)	463	92	20

DISTANCE COMMUTER LIVES FROM LUNENBURG (1966)	NUMBER	PERCENTAGE
6 to 10 miles	43	46
11 to 15 miles	43	46
over 16 miles	6	8

Turn back to the map of the Lunenburg area to see what communities are 16 miles or less from Lunenburg. Suggest some of the communities from which each of the above groups of commuters might come.

We saw earlier some ways the town of Lunenburg and the surrounding area were interdependent.

(1) What does the surrounding area provide for the plant?

(2) What does the plant provide for the surrounding area?

Where Does the Plant Sell its Products?

Have you ever been to a market? You must have been to a supermarket, or a candy store, or a clothing store. Really, we can call all these "markets," for a market is simply the place where things are sold. A small lobster fisherman might sell his products to his neighbours. What would be his market?

A large plant might sell its products to a town, a city, a province, the whole country or the whole world. Of course, this market is much larger than the lobster fisherman's market.

We asked Mr. H. D. Pyke, Manager of the Lunenburg division plant of National Sea Products, about the market for this plant's products. Before you read his answers, you should try to remember what these products are. Can you name all of them?

Question: Mr. Pyke, what is the market for the plant's products?

Mr. Pyke: The products from this particular plant are sold throughout Canada, from coast to coast, and to a smaller extent in the United States, where we sell in the Mid-West and the West Coast.

The word "market" can have another meaning, as we shall see.

Question: Would you sell a different product to a different market?

Mr. Pyke: We've specialized in cooked items and items more likely to be found in the supermarket. This gives us a larger amount of business in Canada, because these items are prevented from entering the United States due to high duties.

(1) Where are the plant's products more likely to be found? Who do you think would buy them there?

(2) What does Mr. Pyke mean by "consumer" market, do you know?

(3) Find out what a duty is. How does it affect where the plant sells its products?

Question: Mr. Pyke, what do you mean by the consumer market?

Mr. Pyke: The fish items are made up into two varieties: the "institutional" items and the "consumer" items. The institutional items are packed in larger packages and are sold to restaurants, to schools for school lunches, and they might be found at the meat counters in the stores.

The consumer items are in smaller packages and are sold from the frozen food counters to housewives.

Question: Is your marketing typical of the Atlantic fisheries?

Mr. Pyke: We sell more on the Canadian market than the other plants on the Atlantic coast or in the rest of Canada.

Question: Speaking about the Canadian market, I've heard that Canadians eat very little fish. I think they eat only about 13 pounds per year while often double that in chicken alone. Why do they eat so little fish?

Mr. Pyke: Your figures are about correct and if I knew the answer to your question, I'd have a bigger job than I've got!

I think one reason is that our people have more money to buy the more expensive meats, like beef or pork, than European countries. Also, I think it is true to say that the Canadian housewife is not as good at cooking fish as she is at cooking other foods. Her fish is not presented in as appetizing a manner as some other food products.

Study a map of population distribution in your atlas.

QUESTIONS:

(1) What can you say about the closeness of the centres of population of Europe and the United States to the sea?

(2) Why might these people eat quite a lot of fish?

(3) What can you say about the closeness of Canada's population centres to the sea? What might be a reason why Canadians eat less fish than some of these other nations?

Question: Mr. Pyke, would one reason that Canadians eat less fish be that Canada's population centre is farther from the sea? Therefore Canadians are less used to eating fish and in the past have received poorer quality fish than others who can get it fresh?

Mr. Pyke: Yes, but this was probably more true in years gone by than it is at the present.

QUESTIONS:

(1) From what you have seen of the plant and its transportation, what has been done to get Canadians better fish?

(2) Write a summary about why Canadians eat so little fish and what this fish plant is doing to change this.

Mr. Pyke: To change the attitudes of Canadians towards fish, people will have to be educated to the good eating qualities of fish. We hear a lot about fish being good for certain heart conditions, but I hope we don't get down to selling fish for medicine!

Now with our better transportation system and the better freezing of fish, we can deliver fish to the central part of Canada in just as good condition as fresh fish on the coast. However, the people in these areas have not yet come to realize this.

UNIT VIII: A FISHING OVERVIEW

In the first seven units we have studied one fishing town, Lunenburg. In this unit we are going to build on what we have learned about Lunenburg to find out more about fishing in the rest of Canada.

The Resource of the Fishery

(1) What is the resource of the fishing industry?

(2) How does this resource differ from the resource of mining, agriculture, or meat packing?

(3) Why do the fish plants have to be close to the resource?

Because fish spoil so quickly and because fish move around, fishing is an industry that must fit itself to the resource. Like miners, fishermen always fear that their resource will run out. Like farmers, fishermen are at the mercy of the weather. Like meat packers, fishermen must wage a war against spoilage.

Because of these difficulties, it is very important for the fisherman to know about fish. If he can learn their way of life, their movements and so on, he is better equipped to overcome these difficulties.

In the table below is shown the main fish caught on the Atlantic Coast in 1964. We are going to include lobsters and scallops in this table although they are not really fish.

Fish	*Amount caught (millions of lbs.)*	*Value (millions of $)*
cod	571	22
flounder and sole	162	5
haddock	106	6
redfish	80	2
herring	313	4
mackerel	24	1
salmon	5	2
swordfish	12	4
lobster	42	24
scallops	17	7

QUESTIONS:

(1) Name some fish caught a) offshore and b) inshore from Lunenburg.

(2) What are the four main catches of the whole Atlantic Coast?

Because so many different fish are caught in the region, it is difficult to say that one area is representative of the whole region. We can state a few generalities. Newfoundland fishermen concentrate on cod. Inshore fishermen concentrate on cod, herring, and mackerel. The Bay of Fundy area is known for lobster. Lunenburgers catch more haddock, scallops and redfish than most other areas.

We are now going to study fish more closely.

The Fish

Some general features are common to all fish. We can use the division head, body, tail. All fish have fins and gills.

QUESTIONS:

(1) What part of the fish would push it forward? What would the fish use for steering?

(2) How does a fish breath underwater? Why does a fish die when brought out of the water?

(3) How is the fish suited to life in the sea?

The Lobster

Lobster are not fish. They crawl along the ocean floor. How do you think lobster catch their food?

Lobster are famous for their flavour. They are sold fresh, frozen or canned. Air travel has made it possible to transport live lobster hundreds of miles.

How are lobster caught? From figure 102, describe where most lobster are caught.

Scallops

Describe the scallop. Like the lobster, the scallop is not a fish. They are shellfish and live in "beds" on the ocean floor. George's Bank is especially known for scallops.

The scallop attaches itself to the bottom, but it is able to swim by quickly clapping its shells together. The muscle that pulls the shells together is all that is eaten of the scallop. It is cut out by the fishermen.

Draggers must use heavy steel drags to dig the scallops from the muddy bottom.

Why the Banks?

You can see that the fish gather in the areas we have called banks. These were shown on a map in Unit 6 and on figure 102. Let us take a brief look at why the fish live in these areas.

Fish live on smaller fish who live on yet smaller fish. This is a chain that ends with tiny animals which in turn feed on tiny plants. These plants and animals, called *plankton*, are so small that six million could live in one quart of water! They require sunlight and cool shallow water mixed by currents.

Figure 103 shows the Northeast Atlantic. How is this area suitable for these tiny plants and animals? Point to the areas of shallow water. Compare these areas to the bank areas shown on previous maps.

Notice on figure 102 (page 68) how the fish gather in the areas of shallow water.

QUESTIONS:

(1) Find out where the great fishing areas of the world are located. Make a generalization about their location. What other reason would there be for these areas being close to shore?

(2) What other area of Canada has a good fishery?

Harvesting the Resource

A resource is of no value if men cannot make use of it. Huge deposits of gold would be useless on the moon. Minerals

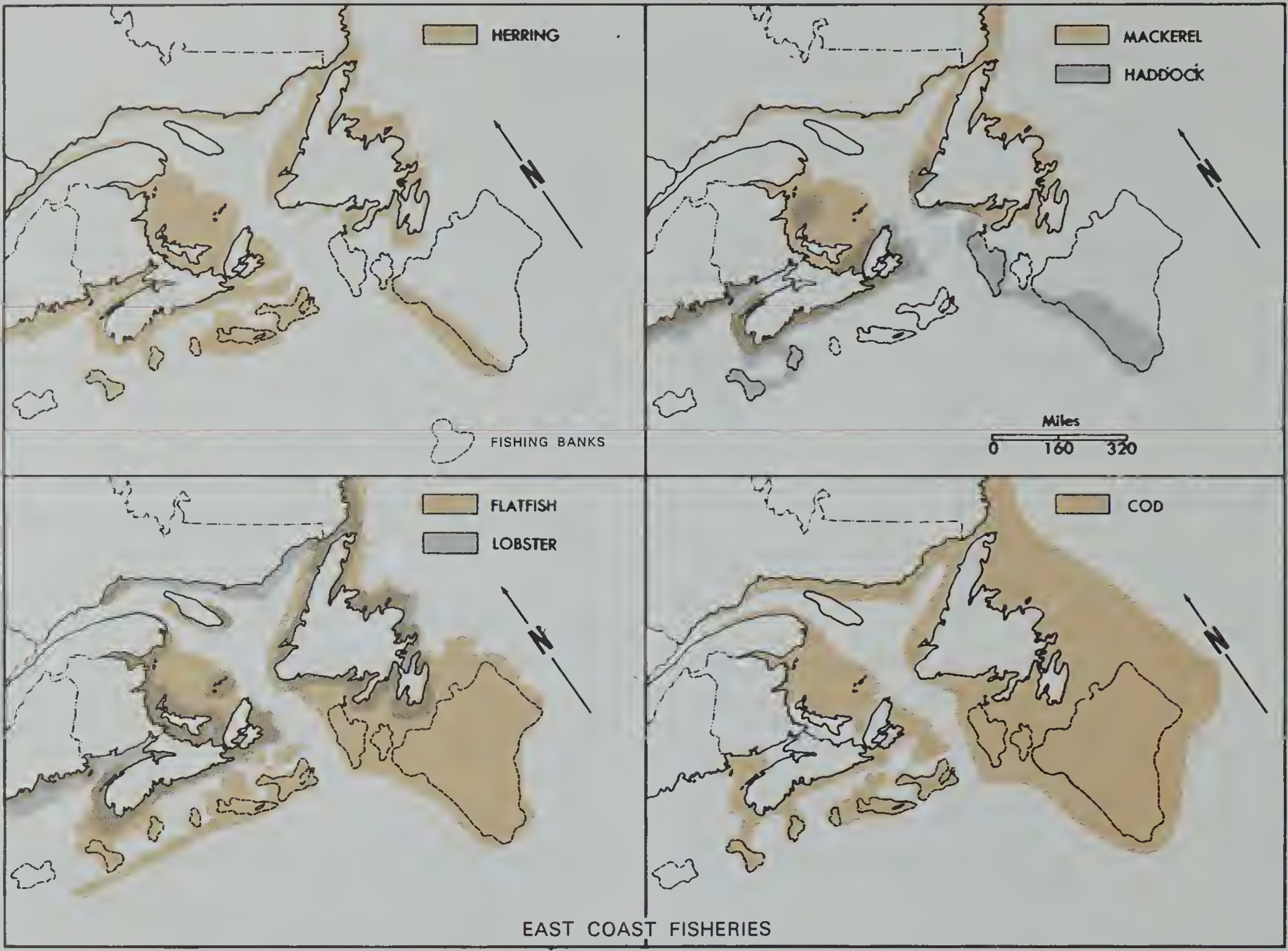
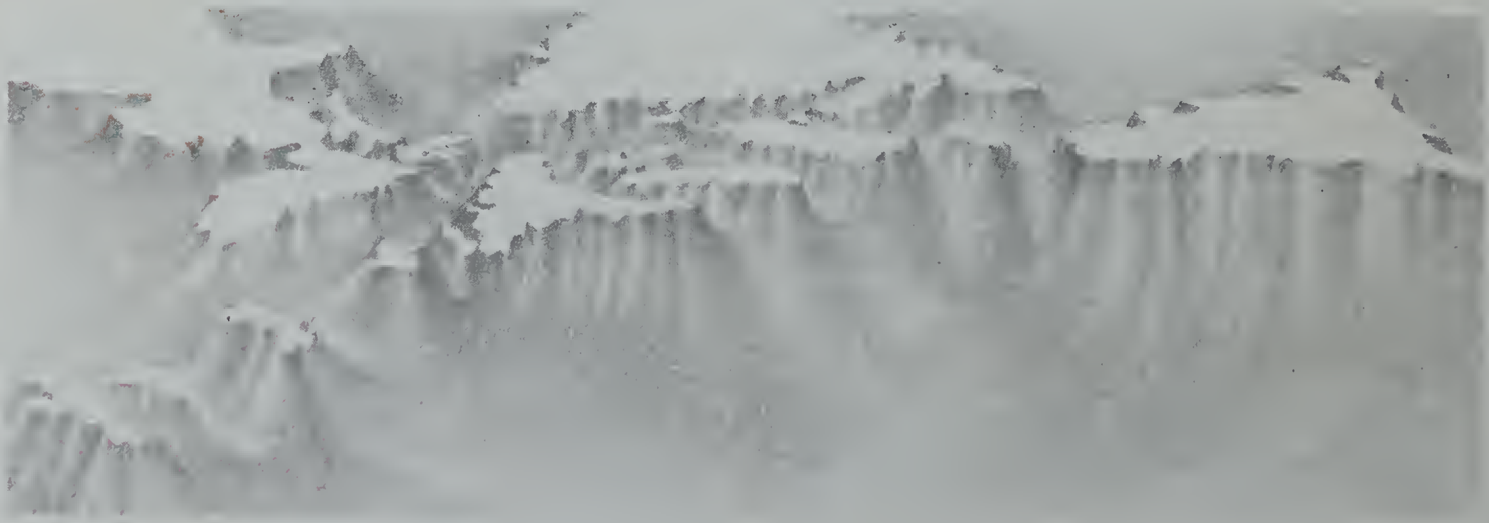


FIGURE 102.

FIGURE 103.

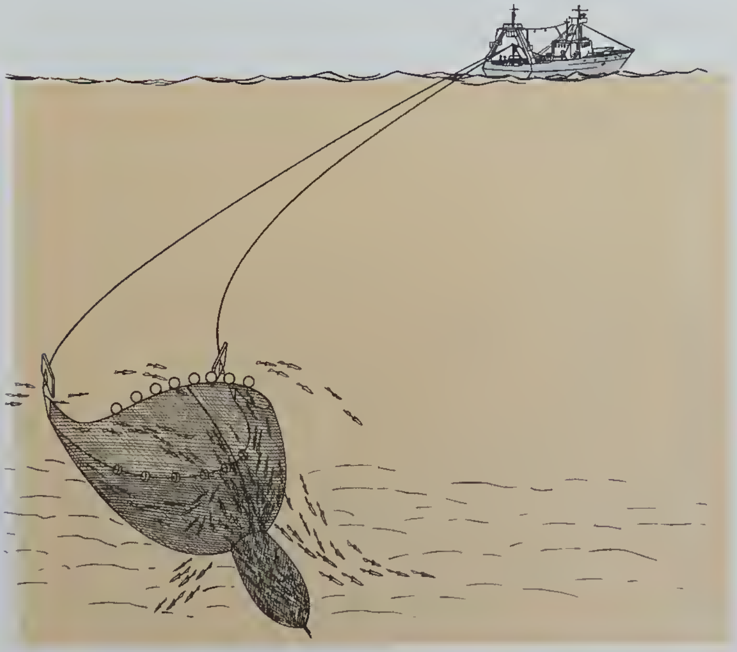


are often left untouched in the North because they are too far away.

Men have worked for thousands of years to find better ways to harvest resources. Usually, manual labour is not enough. Tools are necessary. What tools are used in farming? . . . in mining? The more efficient the tools, the more use man can make of resources. This is true of the fishing industry as much as any industry. If the industry is to grow and to keep pace with other industries, it must make more use of tools.

Following are the methods used in Canadian fishing. As you study them you should think of how these methods are improvements over the older methods you studied in Unit 4. Think of how these methods use tools, or machines, to save work and time. Also, try to determine which methods will probably continue in use and which methods will probably be replaced.

FIGURE 104.



1. *Dragging*

This is the most important method now used on the Atlantic Coast. Fast ships can travel great distances. Their modern equipment can haul in huge catches. You saw how these ships operate in Unit 6.

In the older method of dragging the net was handed up over the side and the fish were gutted on deck.

Figure 104 shows the newer method of dragging. In this, the net is hauled up over the stern and the fish are dropped below for gutting. The huge doors are conveniently hooked onto the A-frame.

QUESTIONS:

(1) What keeps the mouth of the net open?

(2) Review briefly some of the tools and instruments used on draggers.

(3) What are some of the difficulties in dragging?

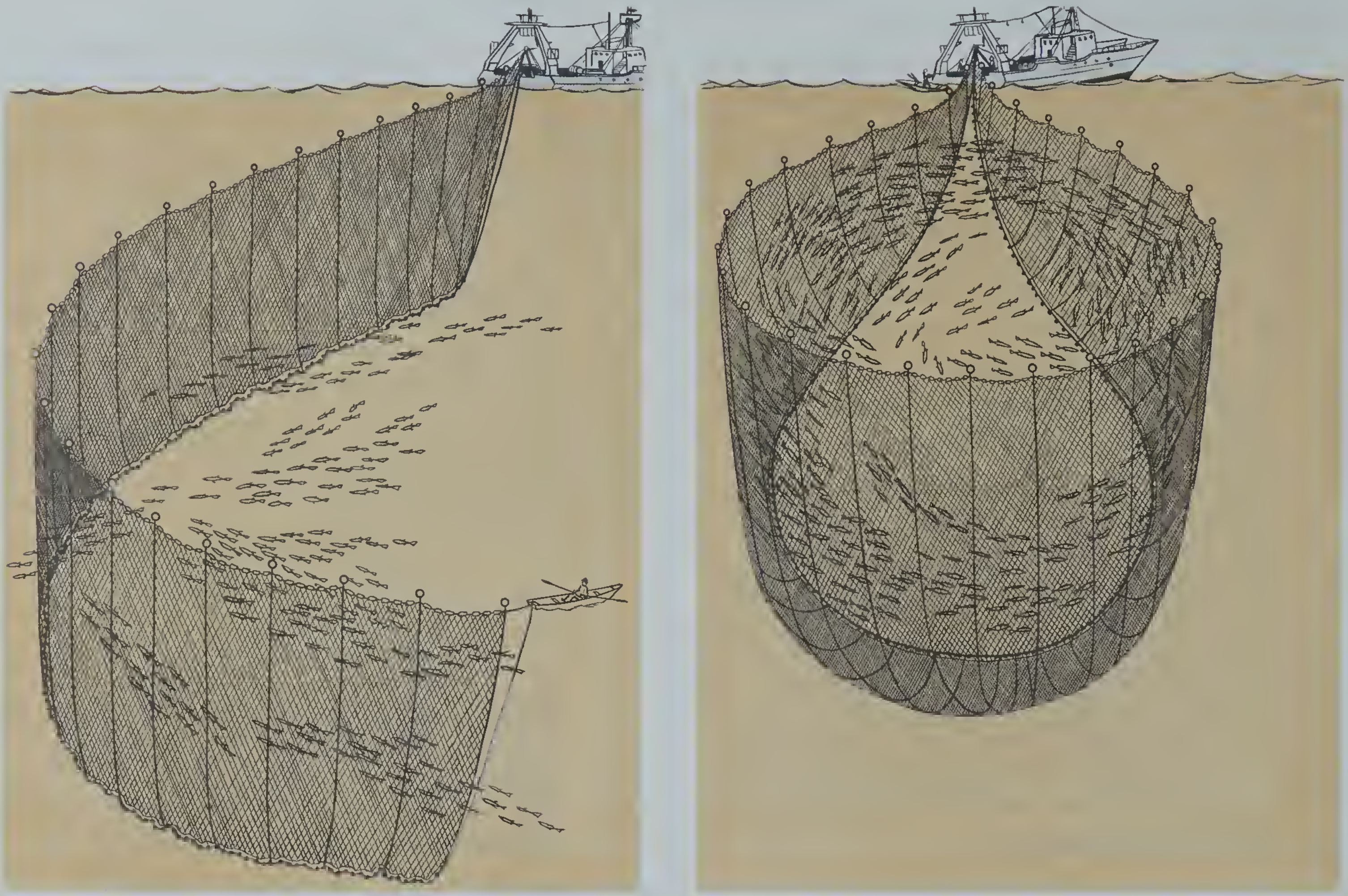
(4) Why would dragging be the method of the future?

2. *Purse Seining*

Figure 105 shows this method. The fish are surrounded by a huge net. The bottom is closed in so the fish cannot escape. Then the net is pulled closed like a purse. The fish are hauled from the net by buckets. Huge winches are necessary to haul in the nets.

This method is best for smaller fish, or for fish that swim near the surface. Thus

FIGURE 105.



herring and salmon are the main catches. This method is used more on the Pacific Coast.

QUESTIONS:

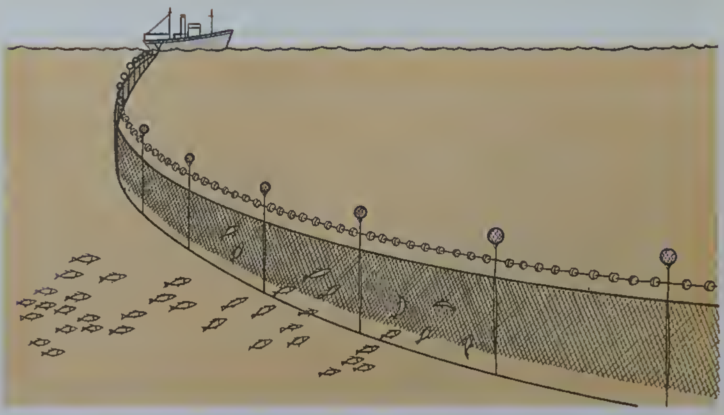
(1) What are the main catches by purse seining?

(2) What fear did Mr. Greek express about the increased purse seining of herring on the Atlantic Coast?

3. *Gill Netting*

Mr. Greek showed us gill nets in Unit 5. What fish were caught by this method? From figure 106, describe this method. Explain why this method may be passing out of use.

FIGURE 106.



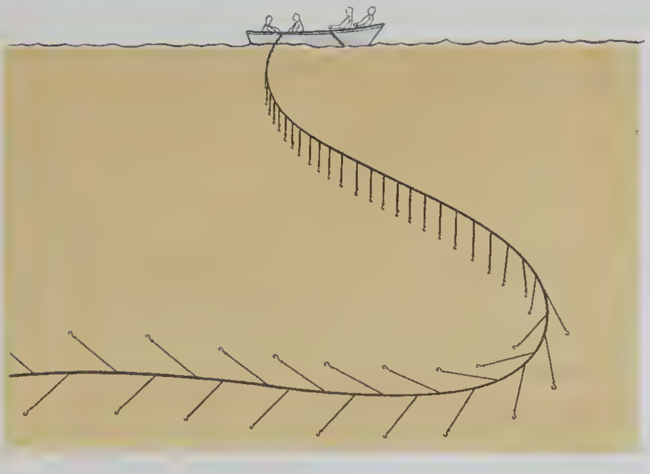


FIGURE 107.

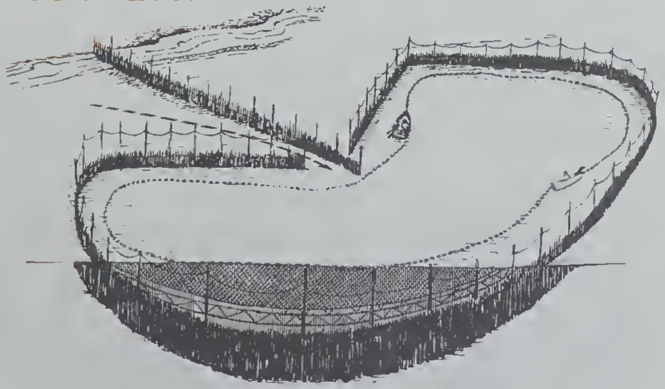
4. *Longlining*

Pacific Coast fishermen use this method for salmon fishing. It is being replaced by dragging on the Atlantic Coast. Describe this method from figure 107.

5. *Weirs*

This interesting method has been used for fishing for thousands of years. It is shown in figure 108. Fish are guided into the weirs by fences stretching to the shore. Fishermen can then gather the fish from the weir in seine nets. In places, like the Bay of Fundy, where the tide runs out far enough, the fishermen can walk out to the weir at low tide to pick up the fish.

FIGURE 108.



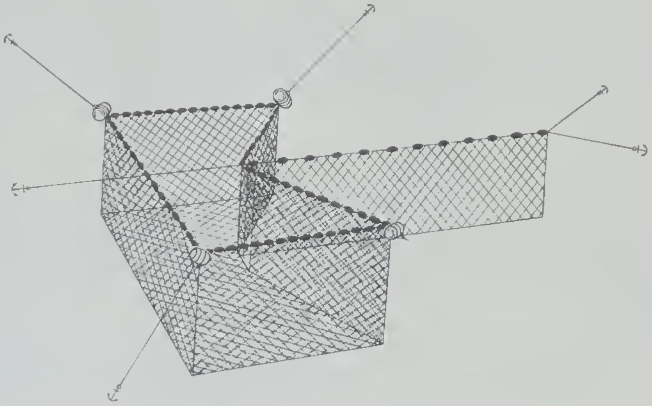


FIGURE 109.

6. *Cod Trapping*

Figure 109 shows a cod trap. Thousands of Newfoundland fisheries depend on this method. The cod swims into the trap and is hauled up by the fishermen.

Summary:

Since fishermen get very little more for their fish today than they did in the past, they must catch many more to make a living. To improve their catch fishermen are being forced to use more modern methods, as are fish plants. Many fishermen who cannot afford to buy larger ships are forced to choose between working on a ship owned by a company and giving up fishing.

QUESTIONS:

(1) Which methods will probably disappear? Which will probably still be used? Explain your answers.

(2) Make a generalization about how harvesting a resource is related to the use of tools and machines.

UNIT IX: FISHING ACROSS CANADA

Study the table below. It shows the value of fish caught across Canada in 1964.

AREA	VALUE (MILLIONS OF $)
Atlantic Coast	87
Pacific Coast	48
Inland Areas	13
Total	148

QUESTIONS:

(1) Find the Pacific Coast area in your atlas. What province would take in all the fish in this area? What states of the United States would probably have good fisheries?

(2) What would be meant in table 1 by "Inland areas"? Name some rivers and lakes across Canada that might have good fishing. If you suggest the Great Lakes, you should check up on Canada's pollution problems.

Study the next table (above right).

PROVINCE	VALUE 1960 (MILLIONS OF $)	VALUE 1964 (MILLIONS OF $)
Newfoundland	34	47
Prince Edward Island	7	8
Nova Scotia	52	91
New Brunswick	33	32
Quebec	8	11
Ontario	6	6
Manitoba	7	7
Saskatchewan	3	3
Alberta	2	1
British Columbia	54	98

QUESTIONS:

(1) Write down the three areas mentioned in the first table in this chapter. Under each write the provinces belonging to each area.

(2) Which province ranks first in value of fish? Where does Nova Scotia rank?

(3) Which provinces showed considerable gains over this four-year period?

(4) Which provinces showed a decline or lack of gain?

(5) In what category are the provinces in question 3? . . . in question 4? Make a generalization about the growth of the fishing industry using the areas in question 1.

The Pacific Coast Fishery

British Columbia has a very rich fishery. The next table shows the main fish caught on the Pacific Coast. (See next page.)

QUESTIONS:

(1) Which is the main catch by weight? Which fish is very important on both coasts? (Refer back to page 66).

FISH	VALUE IN MILLIONS OF $	WEIGHT IN MILLIONS OF POUNDS
Cod	7	12
Halibut	8	33
Herring	6	505
Salmon	30	124

(2) Compare the importance of cod on the Pacific Coast with its importance on the Atlantic Coast.

(3) Which fish is very important on the Pacific Coast but not on the Atlantic Coast?

(4) Which is the main catch by value? What is the approximate average price per pound of each fish? How much more valuable is salmon than herring? Guess why salmon is more valuable than herring.

Salmon are the most valuable fish on the West Coast. Every fall, these fish swim upriver to the place of their birth to lay their eggs. This is called *spawning*. The many large rivers of British Columbia are suited to salmon. Locate three or four of these rivers in British Columbia in your atlas.

The fish are caught on their way to the spawning grounds. Figure 110 shows British Columbia fishermen hauling in salmon. What method is being used?

Most of the rivers are quite far from the major cities of Vancouver and Victoria. So the fish must be packed before they are transported. As on the Atlantic Coast, the fishing industry must go to the resource. The large plants must locate at the mouths of the salmon runs. Look at figure 111. It shows a modern salmon canning plant at Namu. Locate Namu on the map of the British Columbia fishery (See figure 112).

FIGURE 110.

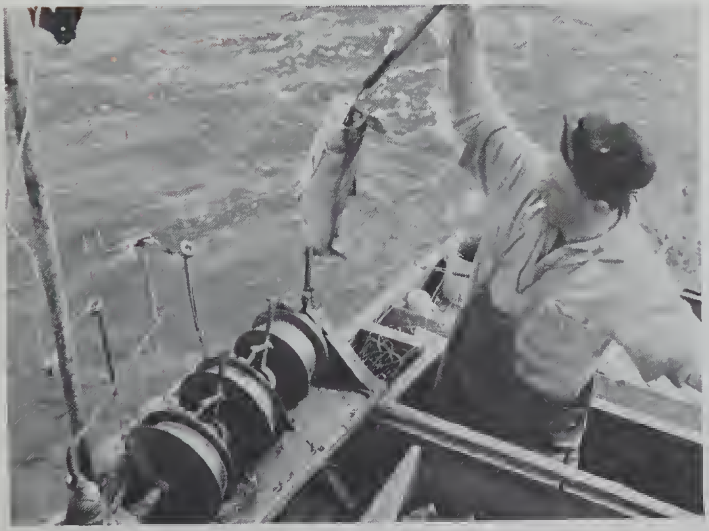
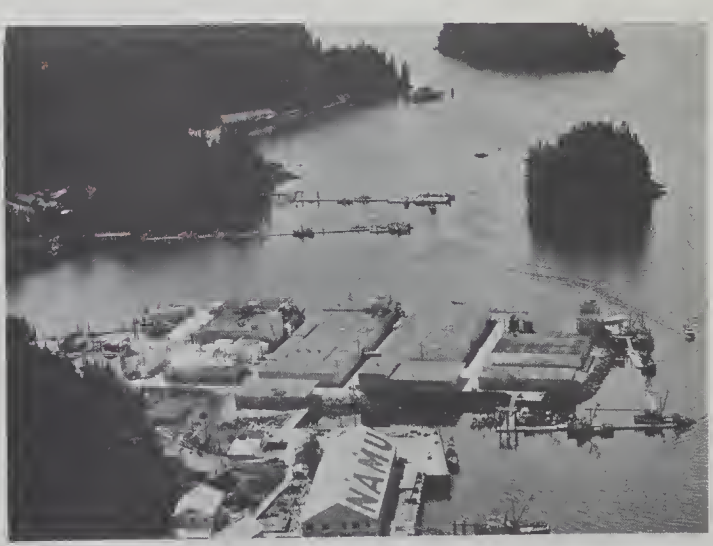


FIGURE 111.



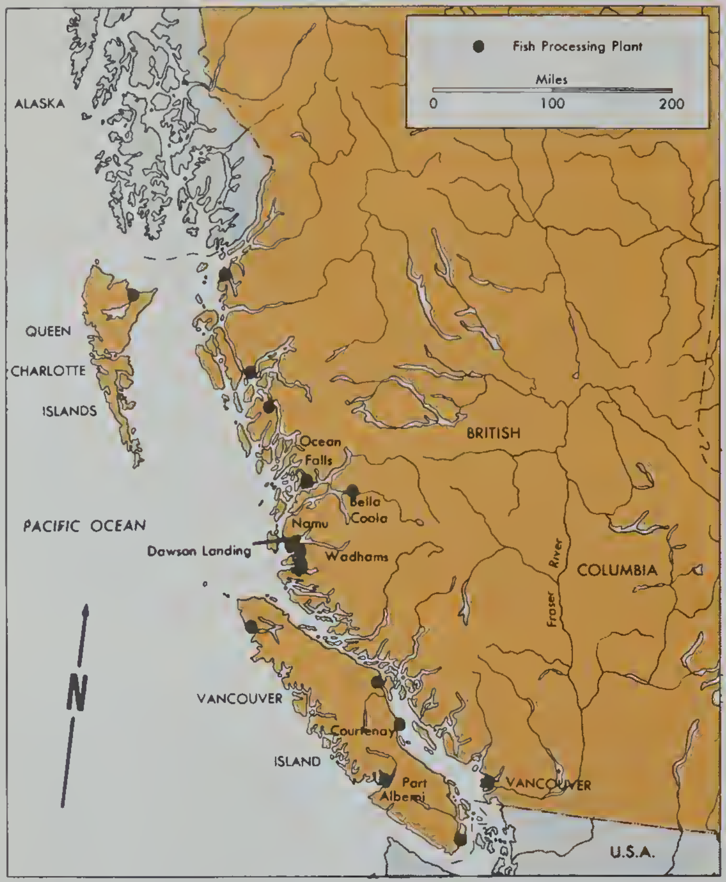


FIGURE 112.

QUESTIONS:

(1) What is the distance from Namu to Vancouver?

(2) Why is it so important to pack fish quickly?

(3) Describe where the herring are caught.

(4) Describe the canning plant. Is it a modern plant?

(5) Name some of the other fish processing centres in British Columbia.

The British Columbia fishery depends almost all on the salmon. What fraction of the total value of Pacific Coast catches is the value of the salmon catch?

Discuss in class the ways in which Lunenburg is representative of fishing in Canada.

Summary:

The British Columbia and Nova Scotia fisheries have both shown growth. This is mostly due in both areas to increased use of better equipment and the building of modern plants like those at Lunenburg and Namu.

British Columbia fishermen are more dependent upon one catch. This differs from the Lunenburg fishermen we have studied. What different fish did the Lunenburgers catch?

Another difference is the seasonal nature of the Pacific Coast fishery. When do Lunenburgers fish? Figure 110 also showed a vast difference. British Columbians fish mostly just offshore for salmon and herring. Where do Lunenburgers fish?

Employment in the Fisheries

PROVINCE	EMPLOYED IN FISHING 1964
Newfoundland	22,615
Nova Scotia	13,333
New Brunswick	5,790
Prince Edward Island	3,329
Quebec	4,210
Ontario	2,952
Manitoba	5,642
Saskatchewan	2,010
Alberta	4,211
British Columbia	13,300

QUESTIONS:

(1) In which provinces is fishing an important source of employment?

(2) Which province rates first in number of employees in fishing? Turn back to the table giving the value of provincial fisheries. Where does this province rate in terms of value? Make a generalization about the Newfoundland fishery by comparing the number of men employed in fishing to the value of the catches.

(3) Compare British Columbia and Nova Scotia in both employment and value of the catch.

The Export of Canadian Fish Products

The next table shows the value of the exports of various fish products. What is an export? Why are exports valuable to a country?

QUESTIONS:

(1) About what fraction of the exports go to the United States? What two products make up the largest part of this? From which coast would most of these be sent?

(2) About what fraction of the exports go to Great Britain? What product makes up the largest part of this? From which coast would most of these be sent?

About 60 percent of all Canadian fish products are exported. This is an important source of wealth for many Canadians. In fact, whole regions, like Newfoundland, or whole towns, like Lunenburg, depend solely on the income from fish.

Most of the canned fish are sold from British Columbia. Very little of this canned salmon goes to the United States, for this country has a large salmon canning industry of its own. Much of British Columbia's salmon is sold to Great Britain or Australia.

The Atlantic Provinces sell most of their exports to the United States, with large portions going to Europe. The huge population centre in the North-eastern United States makes a good market for Canadian fish. Because this

		(MILLIONS OF $)	
	TOTAL EXPORT	TOTAL SOLD TO GREAT BRITAIN	TOTAL SOLD TO TO U.S.A.
Whole fish, fresh or frozen	44	4	34
Fillets or blocks, fresh or frozen	65	1	63
Preserved (salted, smoked etc.)	23	½	7
Canned	25	11	½
Grand totals (approx.)	157	17	104

area is close, most of the products sold to it can be fresh or frozen and do not have to be canned.

The Canadian Fishing Industry and the Future

A great part of Canadian history has been written around the fishing industry. The earliest settlements in Canada were established as fishing posts. Although the development of the Pacific Coast fishery is more recent, the Atlantic Provinces have long depended on this industry. For a great many communities like Lunenburg, fishing has been a way of life. The town is built to fish. The people look to the sea.

But even in its wealthiest days fishing was a hard way of life. It still is. It is still uncertain. The fish, the weather, the markets and even the lives of the fishermen are uncertain. Lately, competition from nations, such as the Soviet Union and Norway, has greatly increased in the North Atlantic.

Because fishing is such a different way of life, looking always out to sea, fishing areas often become isolated. We saw how Lunenburgers felt a community pride. They feel almost as one family. They feel they have a common past and a common adventure.

However, this isolation sometimes means that progress made in other areas might pass by these areas. They may come to rely too much on one industry. When a young man grows up in some of these areas, his choice is often to go fishing or to leave the area. The single fisherman finds it impossible to make a living by himself. Many people feel that the future of the industry is not bright.

This is a problem facing the whole Atlantic region. Look at our last map. What are Canada's two largest cities? What route connects the great industrial areas around these two cities to the rest of the world. Describe the position of the Atlantic Provinces as compared to this route.

Many people feel that this region's future is not bright. Lunenburg's answer to this feeling is a modern fleet of draggers and a new fish processing plant. These show the town's confidence. You can see from the tables that this confidence is paying off in growth.

Someday, perhaps, we will have to look more and more to the seas for food. In a very crowded world, we may see the confidence of Lunenburgers supported by a growing demand for the harvest of the seas.

We hope it is your good fortune to some day visit Lunenburg. There we are sure you will experience a beauty and a friendliness that a book can only hint at.

FC 75 M82 1971 BK-012
MARSH JAMES H
THE FISHERMEN OF LUNENBURG
39524097 CURR
000010126274

People and Places in Canada Series:

Alberta Foothills
Gary de Leeuw *(ISBN 0-03-925600-6)*

Ferryboats of British Columbia
Richard P. R. Porter and David Jones *(ISBN 0-03-925685-5)*

FlinFlon : *A Northern Community*
David Jones *(ISBN 0-03-925625-1)*

Gold River : *A Centre for Lumbering*
Ronald G. Jones and Frank Waters *(ISBN 0-03-925640-5)*

Granby : *A Manufacturing Centre*
Jean Lavallée *(ISBN 0-03-925605-7)*

Home Oil, Calgary : *Oil Exploration and Production*
Edward Koch *(ISBN 0-03-925635-9)*

Kitchener : *A Meat Packing Centre*
Edward Koch *(ISBN 0-03-925670-7)*

Manitoba Lowlands : *A Mixed Farm*
Gary de Leeuw *(ISBN 0-03-925080-6)*

Okanagan Valley : *Life on an Orchard*
Ronald J. Carswell *(ISBN 0-03-925645-6)*

Port Alberni : *Pulp and Paper*
R. D. Bramwell *(ISBN 0-03-925655-3)*

The Crowsnest Pass : *A Coal Mining Valley*
David Jones and Gilles Lemieux *(ISBN 0-03-9256*

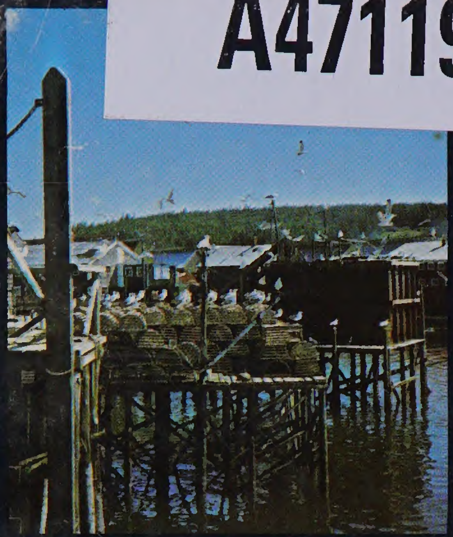
The Fishermen of Lunenburg
James H. Marsh *(ISBN 0-03-925615-4)*

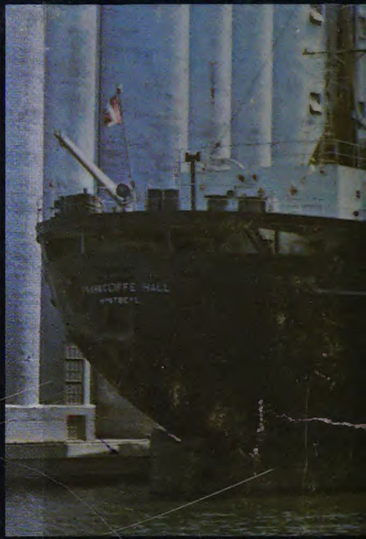
Winnipeg : *Gateway to the West*
Edward Koch *(ISBN 0-03-925310-4)*

Holt Sample Studies Teacher's Manua
Gary de Leeuw *(ISBN 0-03-925695-2)*

FC 75 M82 1971 bk.012
Marsh, James H.
The fishermen of Lunenburg :
39524097 CURR

A47119





A Holt Sample Study

Holt, Rinehart and Winston of Canada, Limited